# "ROLE OF ENDOSCOPY IN EVALUATING UPPER GASTROINTESTINAL TRACT LESIONS IN RURAL POPULATION"


**By**

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**DISSERTATION SUBMITTED TO SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION AND RESEARCH, KOLAR, KARNATAKA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF**

## MASTER OF SURGERY

## IN

## GENERAL SURGERY

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***Dr. SHARANABASAVARAJ JAVALI***

## LIST OF ABBREVATIONS

| | | |
|---|---|---|
| gi | : | gastrointestinal |
| i.e. | : | that is |
| gu | : | gastric ulcer |
| du | : | duodenal ulcer |
| GA | : | General Anaesthesia |
| OT | : | Operation Theatre |
| PET | : | Positron Emission Tomography |
| ERCP | : | Endoscopic retrograde cholangiopancreatography |
| MRI | : | Magnetic resonance imaging |
| OCT | : | Optical coherence tomography |
| CCD | : | Charged Coupled device |
| YAG | : | Neodymium Yetrium Aluminum Garnet |
| CBD | : | Common bile duct |
| OPD | : | Outpatient department |
| IPD | : | Inpatient department |
| GIT | : | Gastrointestinal tract |

# ABSTRACT

**Background and objectives**

Before the advent of endoscopy direct access to the lesion for the confirmation of the diagnosis was difficult, this posed difficulty in contemplating adequate and appropriate surgery. Endoscopy as a diagnostic and therapeutic tool has grown in recent years. Upper Gastrointestinal endoscopy is one of the most fascinating branch which serves not only as a means of resolving or amplifying the diagnosis made clinically or by x-ray ,but also a primary diagnostic procedure for conditions not otherwise diagnosable on un operated case.

Fibre optic upper GI endoscopy has already become firmly established as a reliable, quick and inexpensive tool. This study was done to know to detect the upper gastro intestinal lesions in rural population of kolar district, the distribution pattern of various upper GI lesions in patients presenting with upper GI symptoms and to follow the endoscopic diagnosis for medical and surgical management.

**Methods**

All patients reporting to outpatient department and also the inpatients in wards of General Surgery and other Departments, who have upper GI symptoms and were advised endoscopy at R.L.JALAPPA Hospital and research centre,Kolar, from a period of December 2011 to august 2013., were taken for this study.

**Results**

Of the 600 cases, 370 were males and 230 were females. Disease incidence was highest in 51-70years age group i.e. 21.6%.Pain abdomen was the most common symptom. Epigastric tenderness was the most common sign among the patients clinically. Reflux esophagitis and diffuse gastritis formed most common cases (307 cases).Incidence of duodenitis - 7.83%, peptic ulcer-3.3%, oesophageal varices-1.5%, carcinoma oesophagus-4.5%, carcinoma stomach-4.6%, oesophageal candidiasis 4.16%, normal study-14.5%.

**Interpretations and Conclusions**

Upper GI lesions were more common in males. Incidence of diseases was highest among elderly age group , most of them being benign mucosal lesions mainly due to spicy food and tobacco habits. Incidence of malignancy was mostly among older age group above 50 years. Incidence of normal study was high owing to increased medical care, easy availability of the procedure and increased medical awareness among patients. In all these cases upper GI not only helped in diagnosing the disease but also helped to get information about pathology, extent of disease and complications that have occurred. The study proved its safety, reliability, and the lowest morbidity and mortality associated with it. Hence this study highlights importance of diagnostic and recording of the various gastroenterological disease we come across in rural population.

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# **INTRODUCTION**:

What is endoscopy is it a instrument or technique or it is a “Revolution or Evolution”? Many have come to understand the meaning of endoscopy as merely that of technology or instrumentation. Because its roots as an almost exclusively diagnostic tool are so recent and this limited conceptualization has been somewhat difficult to escape. A more accurate definition however places endoscopy firmly in the realm of a new philosophy, one rooted in what is now referred to as minimally invasive surgery.

An upper Gastro-intestinal endoscopy or esophago-gastro-duodenoscopy (EGD), is a procedure that allows a physician to directly examine the upper part of the gastrointestinal (GI) tract, which includes the esophagus, the stomach and the duodenum.

The human gut is long and tortuous. Diagnosis and localisation of its afflictions relied for many decades on barium radiology which provides indirect data in black and white. Man is by nature inquisitive and direct inspection in colour is instinctively preferable and probably more accurate. Rigid open-ended instruments allow direct visual examination (and biopsy sampling) of only the proximal 40 cm and distal 25 cm of the gut. Semi flexible lens gastroscopes were introduced in the 1930s and 1940s and used by a few experts; examinations were uncomfortable and incomplete, and biopsy facilities were poor. The situation has changed dramatically since the late 1960s with the introduction of fully flexible and manoeuvrable endoscopes. Upper gastrointestinal (GI) endoscopy is now a routine procedure which has superseded the barium meal as the primary diagnostic tool.

In this situation endoscopy of the upper GIT serves not only as a means of resolving or amplifying the diagnosis made clinically or by x-ray but also a primary diagnostic procedure for conditions not otherwise diagnosable on unoperated case. Fibre-optic endoscopy has already become firmly established as a reliable, quick and inexpensive tool.

Fiberscope permits safe and efficient visualization of the Hypo pharynx, oesophagus, stomach and duodenum. It can be used in the patients with spinal deformity and ill patients. With recent advances, endoscopy forms the mainstay in the management of upper GIT bleeding. Duodenoscopy allows direct cannulation of the papilla of Vater for cholangiography and pancreatography (ERCP). The whole colon can be examined, and methods are available for small intestinal endoscopy. Tissue specimens can be removed from all of these areas under direct vision, using biopsy forceps, cytology brushes and snare loops.

A further revolution occurred in the late 1970s with the arrival of endoscopic therapy. Trans- endoscopic snare removal has revolutionized the management of polyps, and flexible endoscopes now allow removal of foreign bodies, sphincterotomy for gallstones.

Upper GI lesions include patients presenting with symptoms of acid peptic disease (APD) recurrent vomiting, dysphagia, haemetemesis etc. The prevalence of gastro oesophageal reflux diseases (GERD) is more in western countries compared to Asia. The complications such as duodenal ulcers, strictures, Barrett oesophagus and oesophageal adenocarcinoma, can be greatly reduced if early diagnosis and screening is done by endoscopy.[1]

Peptic ulcer (duodenal and gastric ulcer) is common in men and prevalence is increased with age with a peak prevalence of 28.8% in 5th decade of life.[2]

The role of endoscopy in bleeding peptic ulcer disease is significant. It is an effective tool in diagnosis, prognostication and therapy of bleeding peptic ulcer.
The studies have shown that endoscopic intervention has lead to reduction in blood transfusion, shortened ICU and hospital stays. It has decreased the need for surgery and lowered the mortality rate.[3 4]

In this rural population of Kolar, we routinely encounter patients with upper GI symptoms. Hence the need for study early detection of upper gastrointestinal lesions by endoscopy and later evaluating the disease for appropriate management. Endoscopy in conjunction with photography, video recording, biopsy, cytological techniques, laser therapy, and conditions can be diagnosed and treated more readily and timely. Upper GI endoscopy is more accurate in diagnosis of upper GIT bleeding than barium studies. This is especially true for bleeding from mucosal tear (in Mallory Weiss syndrome), gastritis, oesophagitis when skilled endoscopy is available.

The goals of upper GI endoscopy are to visualise all portions of the oesophagus, stomach, duodenum without blind spots to be able to perform the procedure without significant discomfort or risk to the patients and with relative ease by the endoscopist. Current instrumentation has virtually enabled us to achieve these goals.

The imagination and ingenuity of endoscopists and radiologists supported by constructional skills of manufacturing companies have now made many therapeutic procedures carried out by endoscopy safe, have lower morbidity and mortality and involve a shorter hospital stay, the two great advantages over the operative techniques.

Just as cystoscopy early in the century led to the development of urology as a speciality, so did fully flexible gastrointestinal endoscopy recreated gastroenterology. With the parallel development of other powerful technological tools, such as radiology, ultrasonography, magnetic resonance imaging and radio immunoassay, among others and with new treatment methods, flexible endoscopy fundamentally and irreversibly altered the field of gastroenterology.

Every Surgeon and gastroenterologist today has the ability to check his or her differential diagnosis against the endoscopic findings, to record pictures, to obtain biopsies and consult with other physicians and thereby instruct and learn from the pathologist and radiologist. In this way, a firm structure is built on which diagnosis and therapy can be continuously refined and more confidently applied, with outcomes being known from follow-up observations.

Along with its all diagnostic values, now the upper GI endoscopy has a world wide accepted therapeutic applications. Endoscopic haemostasis is now widely accepted as the method of choice in the management of upper GI bleeding due to ulcer disease or varices. Recent meta-analysis have shown that endoscopic therapy

reduces both the rate of surgery (in peptic ulcer bleeding) and the overall mortality (in variceal and non variceal bleeding).

With the advent of endoscopically placed polyethylene balloons and olive-tipped catheters or dilators directed using guide wires, structures are now amenable to endoscopic therapy. In inoperable oesophageal tumours upper GI endoscopy is used for placement of stunt as a palliative treatment. The development of self expanding metal stunts a recent important advance has added to the endoscopic therapeutics.

GI endoscopy is a skill which requires motivation, determination and dexterity. Patients may suffer if examinations are not performed correctly, and endoscopic techniques themselves may fall into disrepute if results are suboptimal or unnecessary complications occur. The speed of development and the consequent clinical demand for endoscopy initially outstripped the evolution of training facilities. Nearly all interventions in the field of gastrointestinal surgery can be performed using minimally invasive techniques, whether by laparoscopy or endoscopy. At its inception, endoscopy was used strictly for diagnosis, but today's expanding field of interventional endoscopy is broadening the applications in the gastrointestinal tract. As we move forward, novel endoscopic techniques are being developed for management of gastrointestinal diseases, and the field of gastrointestinal surgery will likely be dominated by endoscopic surgery.

# OBJECTIVES OF THE STUDY

- To detect the upper gastro intestinal lesions in rural population of Kolar district.
- To know the distribution pattern of various upper GI lesions in patients presenting with upper GI symptoms.
- To follow the endoscopic diagnosis for medical and surgical management.

# REVIEW OF LITERATURE

## HISTORY OF ENDOSCOPY

In the early 19th century, elementary attempts were made to observe the larynx, rectum, vagina, and urinary tract using primitive endoscopes.

In 1868, Kussmaul made an attempt to observe the inside of the stomach with a rigid straight tube, achieving no successful results. Around this time, it was discovered that bright light is gained by sending electricity to a platinum wire under cooling with running water.[5]

In 1932, Schindler developed a flexible gastroscope with a bending function at the tip. Several experiments were also conducted to make a diagnosis by photographs taken with a miniature camera inserted in the stomach.[6]

In 1950, completely separately from Lange's experiment, Uji et al. developed the gastrocamera.

In 1957, Hirschowitz made a fiberscope. Based on this technology, the gastrocamera equipped with a fiberscope was developed and disseminated widely throughout Japan.[7]

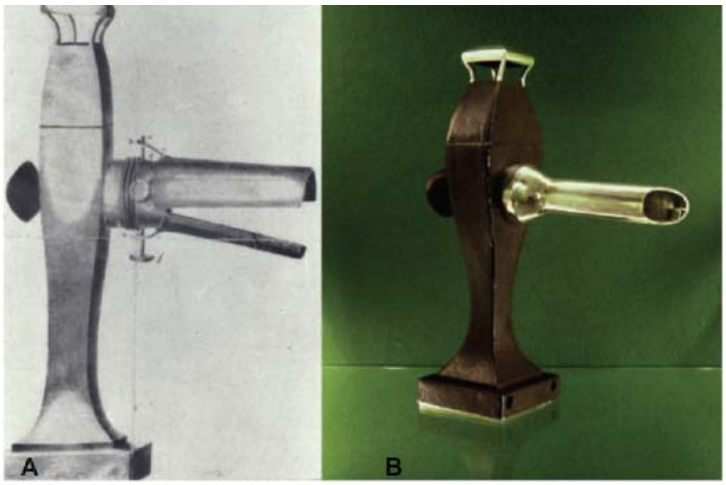
The first fibre optic endoscope was introduced by HIROCHOWITZ in the year 1958[8].

The videoscope, which has become the mainstream of endoscopes today, was developed as television technology progressed. Image enhancement, image analysis, and narrow-band imaging technology are the hot topics in endoscopy today. Auto fluorescence imaging is also one of the recent topics of endoscopy

## EARLY ENDOSCOPE MODELS

It was as early at the times of Hippocrates that people first attempted to observe inside the human body using some form of instrument. Some of these instruments were discovered in the ruins of Pompeii that had been buried under volcanic ejecta in the 1st century. After this time, no remarkable progress was made in endoscopy until the 19th century.[9]

In the early 19th century, several primitive versions of the endoscope such as the instruments by Bozzini (1805), Segalas (1826), Fisher (1827), Bonnafont (1834), Avery (1843), and Desormeaux (1853) appeared. The target organs of these early endoscopes were mainly the larynx, rectum, vagina, and urethra.




Bozzini's light conductor

**Fig 1: Portrays Bozzini's light conductor of 1805, which looks like a lantern with a height of 34 cm. The light source was a candle.**

Desormeaux created an apparatus that he named an endoscope in 1853.The light source was a lamp fired by a mixture of alcohol and turpentine. This apparatus was mainly targeted for observation of the urethra and bladder.

## RIGID AND FLEXIBLE GASTROSCOPES

Kussmaul was the first person who tried using an endoscope to observe inside the human stomach in 1868. Seeing the performance of a sword-swallower, Kussmaul got a hint of the idea that a straight rigid bar could be inserted into the stomach.


**Fig 2: Kussmaul testing the gastroscope in a sword swallower, 1886**


**Fig 3 : Kussumal gastroscope.**

However, whole stomach could not be visualised. The light source formed the biggest problem for early endoscopes. In the mid-1800s, it had already been discovered that bright light could be obtained by the electric glow of a platinum wire with a water cooling system. This technology was applied to observation of the larynx in the 1860s.

Nitze and Leiter invented an esophagoscope and gastroscope in 1879. In 1881, Mikulicz invented a rigid gastroscope. The light source was a platinum glow wire with water cooling. Mikulicz succeeded in observing gastric cancer and ulcer cases.

Nitze in 1886 created a cystoscope with a miniature light bulb.

After that, various kinds of rigid gastroscopes were invented. Sussman's gastroscope (1911) is well known. Elsner's developed side-viewing scope in 1911.[10] Intragastric Photography (Gastrocamera)

Intragastric photography is a method to make a diagnosis by inserting a miniature camera into the stomach.

Einhorn in 1889, thought of making a diagnosis by intragastric photography.

Schaaf developed his device in 1898, and in the same year, Lange and Meltzing developed their device. Schaaf's device was a direct-forward-view type, and it could take only one picture.

With the Lange and Meltzing device and the Porges and Heilpern gastrophotor, it was possible to get many pictures.

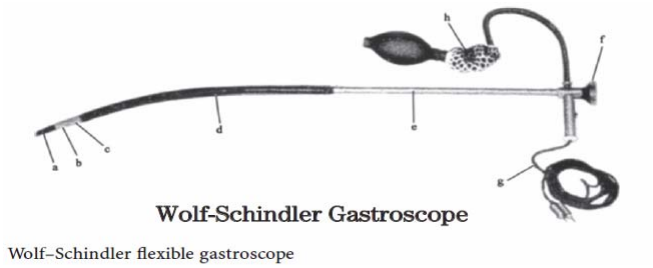



**Fig 4 : Wolf –Schindler gastroscope**

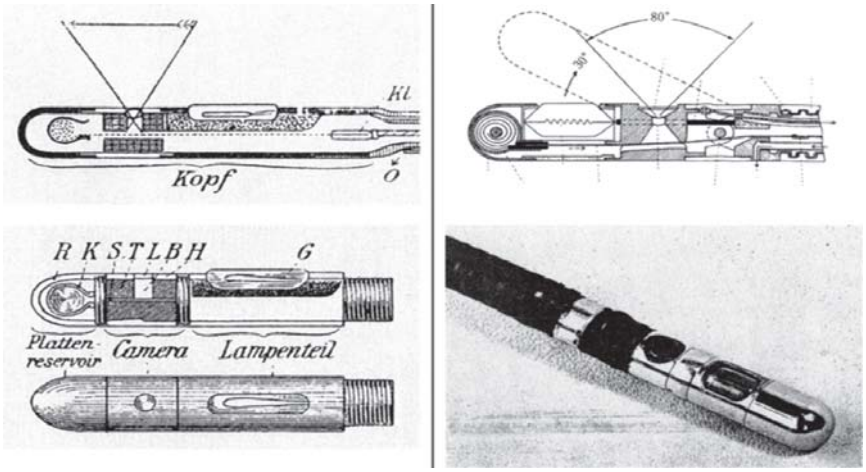



**Fig 5 A : Lange and Meltzing device. B. Gastrocamera (Uji)**

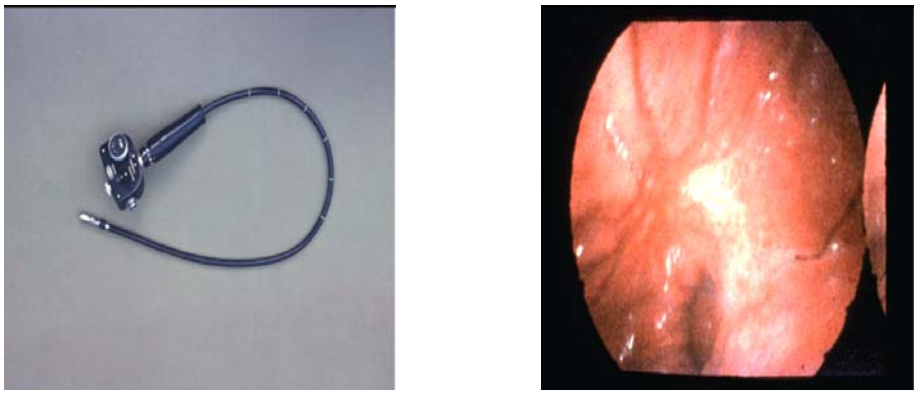


**Fig 6A: Type V gastrocamera. B. Early cancer shown with type V gastrocamera**

The diameter of the apparatus became thinner and thinner with the newer models. The type V gastrocamera (Fig.6) was the most popular. By gathering gastrocamera photographs of early gastric cancer cases from leading nationwide institutes, the basis of early gastric cancer was done.

Lamm proved the theory of glass fiber optics by experiments in 1930 when he was still a medical student in Germany.

Hirschowitz developed a prototype of the fiberscope in 1957. Figure 7A, shows the original model. Production of the fiberscope in Japan was started in 1963.

Olympus Medical Systems, Tokyo, Japan, developed the gastrocamera with a fiberscope in 1964.

The apparatus at the bottom of Fig 7D, is the first model. In 1966 a thinner model was introduced, which is shown in the Fig 7B. Then, the model GTF-A with an angulation mechanism was introduced.

As technology advanced, a biopsy channel was added (Fig. 7C), and manufacturers started introducing various fiberscopes for the stomach.

The lighting intensity improved with the light source using glass fiber. It had also become possible to take pictures by attaching a camera onto the eyepiece. Models with a direct-forward-viewing system were created in the mid-1970s.

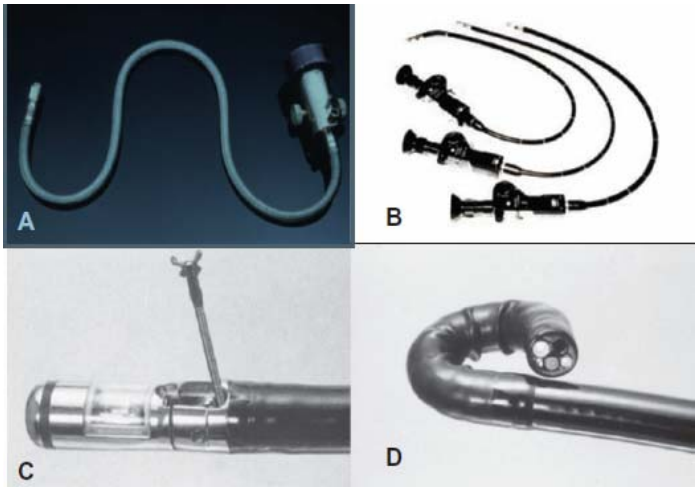



**Fig 7 : A Prototype fiberscope (Hirschowitz). B Gastrocamera with fiberscope. C Fiberscope with biopsy function. D Direct-forward-view fiberscope.**

Those so-called pan-endoscopes have remarkably advanced observation ability, with a wider view angle, brighter image, and wider angulation range at the tip (Fig. 7D).

Models with a direct-forward-view system became widespread after the early 1980s and replaced side-view scopes in the late 1980s.

The principles of laser light, first enunciated by Einstein was put into practice as recently as 1960 by Maiman. The first trial of lasers in gastroenterology was the use of the CO2 laser transmitted through a hollow rigid endoscope to coagulate bleeding superficial lesions in dog stomach.

Two types of laser are currently in use for the endoscopic control of alimentary haemorrhage(1)they are Argon ion laser which is a gas laser and (2) Nd Yag (Neodymium Yetrium Aluminium Garnet)laser which is a solid state laser.[11]

**FUTURE ENDOSCOPY**

This is a speculative essay reviewing the current limitations of existing flexible endoscopic surgical methods and possibility of future development that may change endoscopic practice as it adopts on increasing therapeutic role. There may be a potential for the development in flexible endoscopic surgery techniques that will be comparable to that seen in rigid laproscopic surgery. Low technology and high technology solutions are considered. Invention, common sense and engineering effort are needed to take flexible endoscopic surgery to a higher level of functional efficacy. Endoscope design has been relatively static over the last 25yrs. The changes that have been introduced include immersibility, charge-coupled device (CCD) video imagery, smaller optical fibers and a disposable external sheath but these have made almost no concessions to the development of endoscopic tools through the endoscope. A so called therapeutic endoscope either has a slightly larger biopsy channel or two channels.[12]

The technical improvement in endoscopes designed for cholangiopancreatography show that careful design of endoscopes to deliver accessories at acute angle can allow complex therapeutic interventions in the relative inaccessible area of the bile duct.

Endoscopic ultrasound is probably important in the further development of endoscopic surgery, since it allows visualisation of structures outside the gastro intestinal tract.

The array of therapeutic procedures such as pseudo cyst drainage, celiac plexus block, injection of substances into tumour etc. is still limited by the rather limited use of linear echoendoscopes which are needed to follow the needle tract. The small biopsy channel size, and the less than optimal angle of the needle path in some endoscopes. Therapy is mostly needle oriented.

There may be an opportunity for the expansion of flexible and remote endoscope therapy to an extent that will ellipse the advances recently seen with laproscopical surgical methods. In order to achieve this goal, it is necessary to recognise the relative inadequacy of the instrument and devices available at present and to consider ways of developing the tools necessary for the next wave of less invasive therapy.

**BIOPSY METHODS**

Probably the single action that must prolong endoscopy that requires the use of an accessory is the taking of the multiple biopsies. The action of passing the biopsy forceps down through the endoscope or colonoscope, opening it, placing it precisely taking a biopsy, pulling it back and emptying the material from the cup to the biopsy forceps and then repassing it, is clearly an efficient process that could be improved. A method of taking 6-8 biopsies without having to remove the biopsy forceps would be significant advantage.

**POLYP CUTTING AND RETRIEVAL**

A specialised form of biopsy is snare removal and retrieval of polyps. All available means of polyp retrieval have their drawbacks.

A means of removing a polyp and then sucking it into a trap, that can catch sequence of small polyps, suggests there is room for improving polyps snare retrieval.

**NEEDLE BIOPSIES**

The use of ultrasound guided needle biopsy is beginning to allow us to take biopsies from organs that are adjacent to the gastrointestinal tract or just outside it or from deep structures below the mucosal surface.[13]

The passage of needle through an endoscope into another organ, with the subsequent passage of a guide wire through the needle, followed by a therapeutic manoeuvre such as placement of stents or use of a laser fibres to destroy a tumour, might increase the range of therapeutic options combining radiological and endoscopic techniques.

**BLEEDING**

Although there is some evidence that injection or thermal methods can reduce bleeding rates in patients with peptic ulcer, significant advances in the field of endoscopic haemostasis will be needed if endoscopic surgery is to progress.

**NEW TECHNOLOGY**

There are a range of promising and sometimes amusing new technologies that may have a role to play in endoscopic diagnosis and therapy. Some of these may be promising for the field of endoscope accessory construction. It is hard to pick out in advance which of the new technologies is likely to stay the distance.

## HYDROGEN COATING AND NEW DRUG DELIVERY SYSTEM:

Hydrogen coated balloons are being evaluated for site-specific delivery[14] or gene therapy[15,16,17] The sponge like coating is loaded with the drug containing fluid, and the water is allowed to evaporate. When expanded into the position the balloon coating is compressed and the drug or genes diffuse under pressure into the tissue.

## INTELLIGENT GELS

Some naturally occurring and man made polymers and hydrogels can respond to changes in their environment by expanding, shrinking or eluting drug, depending on changes in ionic concentration, pH, temperature or electrical field strength. These "smart polymers" or "intelligent gels" might have value in accessory field.[18,19]

## EXPANDING AND IMPREGNATED PLASTICS

A biliary stunt that constantly responds and shrink slightly in response to naturally occurring changes in pH might be less likely to clog. Polymers containing antimicrobials or silver coatings have been tried with mixed results, to reduce biofilm adherence.

## HIGH-INTENSITY FOCUSED ULTRASOUND –MICROWAVES

High-intensity focused ultrasound could be used to destroy neoplastic tissues in endoscopy.[20,21] Microwaves can be delivered through flexible endoscopes and may have advantages over laser or photodynamic therapy in the precision of control over the depth of thermal injury, as well as having cost advantages.

## TELEPRESENCE

It may become possible to perform endoscopic surgery remotely-for e.g. with an experienced surgeon using telepresence instrument safe in the pentagon, with a medical auxiliary setting up the video and radio linked equipment for use in casualties on a foreign battlefield.

## SPECTRAL ENDOSCOPY AND OPTICAL COHERENCE TOMOGRAPHY

The development of fluorescence-guided laser angioplasty systems suggest that fluorescence guided systems for recognising cancer or dysplasia could be linked to thermal or other methods of sleeted tissue destruction that have been coupled with flexible endoscopes include laser Doppler, diffuse reflectance spectroscopy and Raman scattering.[22]

Optical coherence tomography (OCT)[23] is a method that provides two dimensional cross-sectional images of the wall of the gastrointestinal tract. Unlike spectroscopy, OCT provides true anatomical images corresponding to the four layer (mucosa, submucosa, muscularis propria and serosa) of the gut wall. One low coherence light beam is delivered to the tissue and an identical light beam is delivered to a mirror positioned at a known distance from the detector. Using an interferometer and a property of light called coherence, only the light that returns from the tissue to the detector at the same time (and therefore from the same distance) as the light delivered to the reference mirror creates an interference signal and is thus detected. Impressive two dimensional pictures have been obtained. In colonic images for e.g. OCT was able to show individual crypts and crypt arch, tecture, pseudo membrane and lymphoid aggregates that were confirmed at histology. In theory, it has a ten fold higher imaging resolution in comparison with high resolution endoscopic ultrasonography.

## COMBINATION OF INTERNAL IMAGING WITH THERAPEUTIC METHODS

Endoscopic ultrasound endoscopic magnetic resonance(MRI) offer the ability to deliver higher resolution ultrasound and MRI images than those obtainable by external imaging methods and are probably better at staging gastrointestinal cancer than competing methods. If they would be combined with the therapeutic methods, then the value of such imaging methods might be much extended. The passage of a guide wire under endoscopic ultrasound guidance through a needle into a pseudocyst with subsequent drainage has been described by Scehender and others. The use of internal imaging to place a guide wire from the stomach into an adjacent loop of the small bowel with subsequent anastomosis seems feasible.

## MICROENGINEERING

New engineering methods for constructing tiny moving parts and miniature actuators or even motors have been described.[24] Ingenious methods of altering the direction of the tip of a guide wire might be valuable when applied to endoscopic therapy.

## WIRELESS CAPSULE ENDOSCOPY AND THERAPEUTIC ENDOSCOPY

The development of wireless capsule endoscopy has made something that we may be entering a brave new world in which micro machines that are endoscopes can be moved around the body by remote control, making diagnosis and fixing abnormalities. Biopsy using a spring loaded device resembling a Crosby capsule, with an evaluated chamber, would be feasible with existing capsule technology, and patients appear to be able to retrieve capsules from stool using a net and a magnet almost all the time in preliminary patient studie.[25,26,27,28]


**Figure 8: Capsule images; a. Teeth, b. Pharynx, c. Jejunum, d. Colon, e. Stomach folds, f. Ileocecal valve**

## NANOTECHNOLOGY

Drexler in his book ‘Engines of creation’ has suggested that Nano machines, which are designer enzyme like structures, will make food production and work obsolete. Once they have learned to replicate themselves, then they will begin to incorporate design improvement in their structure. He predicts that in their use in medicine they will abolish aging, because all the process of aging are biochemically reversible and therefore easily altered by these nano machines. Another medical prediction is that death would be thing of the past because all diseases would be fixable.[29]

## ANATOMY OF UPPER GASTROINTESTINAL TRACT

### OESOPHAGUS

The esophagus is fibro muscular tube 25cms long extending from the cricopharyngeal sphincter to the cardia of the stomach, 4cms of this tube lies below the diaphragm. The musculature of upper 1/3 is striated, giving way to smooth muscle below. It is lined by squamous epithelium which is replaced by specialized epithelium at the level of hiatus till oesophagogastric junction. When the esophagus is full, it is constricted in four places

1. At its beginning in the neck
2. Where it is crossed by aortic arch
3. Where it is crossed by the left main bronchus
4. Where it pierces the diaphragm.

During endoscopy, measurements are taken from the incisor teeth. Beginning is 18cms, at the level of second constriction is 28cms and where it pierces the diaphragm is 43cms. The diameter of the organ largely depends upon the air insufflations. The lumen is usually collapsed in the cervical region, in the thoracic region it is open during inspiration and closes during expiration. The three physiologic constriction, the upper and lower oesophageal sphincters and the constriction at the level of aortic arch are important for the technique of endoscopy and for localizing lesions. Spasm or increased tone of the upper esophageal sphincters may cause resistance to the introduction of the endoscope. The esophageal mucosa is arranged in the longitudinal folds, which are largely eliminated by air insufflations. Its appearance is grayish pink and a network of longitudinally arranged blood vessels is clearly visible. At the gastro esophageal junction with the achalasia, the lower

esophageal sphincter is patulous and the endoscope practically falls into the stomach.[30,31,32]

The saw tooth pattern or serrate line is clearly defined and is located about 1.5cms proximal to the anatomical border of the cardia.

The esophagus has segmented arterial supply, near the upper third from the inferior thyroid artery, especially the left one. Middle third by branches from the subclavian and bronchial artery. The greater esophageal artery, branch of the descending aorta descends to anastomose with the gastric vessels.

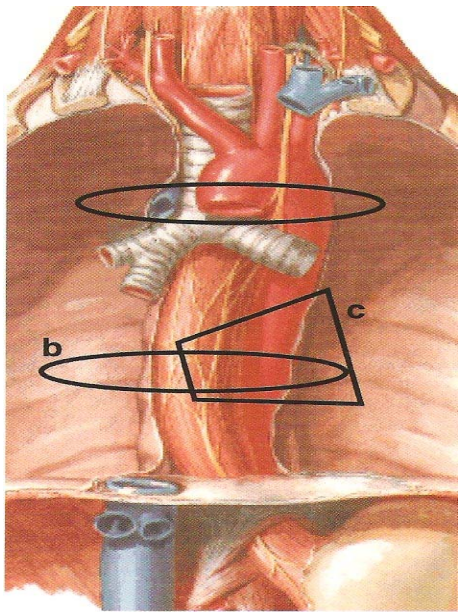



**Fig 9: Esophageal and periesophageal anatomy**

# STOMACH

The stomach is the largest dilation of the gut and is divided into three parts- fundus, body and antrum. The fundus is that part of that part of the stomach which lies superior to the oesophago-gastric junction under the left dome of the diaphragm. About 5-6cms, proximal to the pylorus lies an angulations on the less curvature, known as incisura angularis. A hypothetical line drawn from incisura to the greater curvature denotes the lower limit of the body of the stomach.

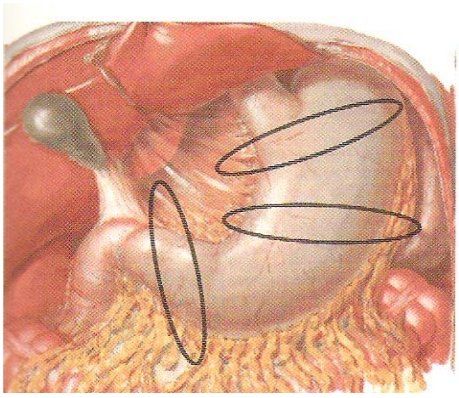


**Fig 10: Gastric and perigastric anatomy.**

The stomach and the duodenum are supplied mainly by the branches of the coeliac trunk.

The coeliac trunk is a wide branch of 1.25cms long from the front of aorta, just below the aortic hiatus of the diaphragm. It divides into three branches

1. Left gastric artery
2. Hepatic artery
3. Splenic artery.

The hepatic artery gives off the right gastric artery, gastro duodenal and cystic arteries and some times the supraduodenal artery. The gastroduodenal artery behind or sometimes above the superior part of the duodenum as the short branch but the longer branch descends between the superior part of the duodenum and the neck of the

pancreas lying immediately to the right of the line along which peritoneum is reflected from the posterior surface of the first half an inch of the duodenum. The artery usually lies to the left of the bile duct but sometimes is in front of it. At the lower border of the superior part of the duodenum it divides into right gastro epiploic and its superior pancreatic duodenal artery.

The normal gastric mucosa of the Stomach appears orange-red through an endoscope. Normally mucosal surface is smooth and glistening. Mucosal blood vessels normally cannot be recognized. The gastric fold pattern changes with the degree of air insufflations. Normally the mucosal folds are parallel along the lesser curvature but towards the greater curvature they increase in size and acquire a tortuous appearance along the posterior walls.

The antrum is not collapsed, normally a transverse fold in the form of a romanic arc, the angulus fold delineates the border between the corpus and the antrum and constitutes an important land mark.

The endoscopist usually recognizes gastric peristalsis only in the antrum. The wave begins at the angulus constricts the antrum concentrically and dissipates as it nears the pylorus. The main criterion of normal antral peristalsis is that the peristaltic waves are concentric when they do occur, i.e. they are not limited to only part of the circumference.[30,31,32]

**DUODENUM**

The duodenum is divided into 4 segments, the bulb, the descending, the inferior horizontal and the ascending duodenum.

The duodenal bulb is 5 to 6cms long, widest immediately beyond the pylorus and shows slight conical narrowing towards the bent leading into the descending duodenum. The folds are rarely prominent, the transition from the bulb to the descending portion is marked by a semi lunar fold. Typical transverse kerkring folds begin at this point and continue throughout the small intestine. The descending duodenum is about 8-10cms along and extends between superior and inferior duodenal flexures. The papilla of vater is found at the medial aspect at the midpoint of the C loop. The papilla is bordered by the plica longitudinalis (which corresponds to the intraduodenal part of the CBD) and below by the frenulum another longitudinal fold. The shape of the papilla is hemispheric.[30,31,32]

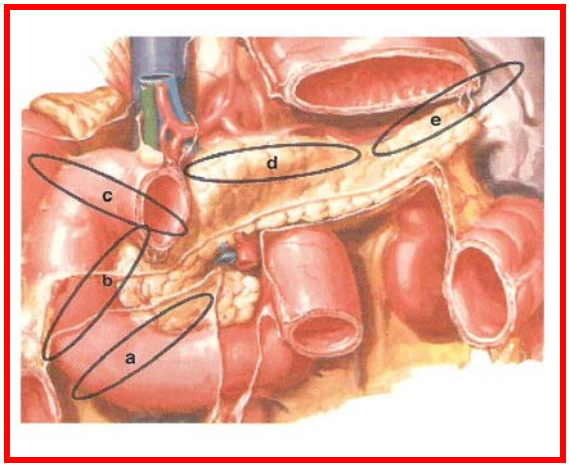



**Figure 11: Duodenal and periduodenal anatomy**

## PATHOPHYSIOLOGY

It will not be out of place if endoscopic appearance and pathophysiology of certain common conditions of oesophagus, stomach and duodenum are discussed here:

### REFLUX OESOPHAGITIS

Pathophysiology: [33] The following mechanisms are believed to play some role in gastro oesophageal closure:

i. Angle of His

ii. Pin chock of the diaphragm

iii. Passive closure by vascular and muscular structures

iv. The valve mechanism

v. Intra abdominal position of the oesophagus

vi. Action of the phreno oesophageal ligament

vii. Sphincter theory.

The reflux disease is associated with an incompetent lower oesophageal sphincter. [34] This incompetence is manifested by a low resting pressure, decreased response to exogenous gastrin administration and a decrease in the sphincter capacity to adjust to rising intra abdominal pressure.

The degree and extent of reflux oesophagitis is determined by the contact time between the reflux material and the oesophageal mucosa and the composition of the material refluxing into the oesophagus. The reflux oesophagitis manifest initially on the mild posterior fold, 1.5 to 2cms proximal to the cardio oesophageal junction. The mucosal erosion spread longitudinally.

Several techniques are used for the diagnosis of reflux oesophagitis, e.g. oesophageal biopsy, oesophageal acid clearance, modified Bernstein's test, oesophageogram. However, the presence of oesophageal damage by the reflux material can be established only by direct inspection through the endoscope.

Endoscopy is not necessary in every patient with heartburn but it should be performed if the symptoms become chronic and/or refractory to treatment, if the diagnosis is unclear, or if complications are suspected. However, the absence of endoscopic features of GERD does not exclude the diagnosis. Ambulatory 24-h esophageal pH monitoring should be considered in cases where endoscopy is negative [35]

Endoscopic criteria for the reflux oesophagitis [36]

1. Dull appearance of the mucosal surface
2. whitish or reddened mucosa, granular appearance, prominent capillaries, friability, indistinct 'Z' line oedematous thickening of mucosal folds that do not flatter with air insufflation.

**STAGES BASED ON ENDOSCOPIC FINDINGS**

1. Single or multiple isolated erosions erythema, and or exudates.
2. Confluence of erosive and ulcerative defects not involving the entire circumference.
3. Lesions involving the circumference of the oesophagus without strictures.
4. Chronic lesions (ulcer) with scaring (wall fibrosis, stricture, barrett's oesophagus with/without strictures).

Stage 1 and 3 heal completely as can be confirmed on follow up endoscopy.

## ACHALASIA CARDIA

### DEFINITION [37]

Dysfunction of the smooth muscle portion of the oesophagus characterised by absence of peristalsis and increased resting tone of the lower oesophageal sphincter combined with reduction or absence of relaxation.

### PATHOLOGY

The etiology of primary achalasia remains unknown, although several hypotheses have been put forth including genetics, viral infection, autoimmunity, and neurodegeneration [34].Childhood and familial cases of achalasia are very uncommon and do not support an important genetic predisposition to primary achalasia [38] . Early descriptions of inflammatory infiltration of the affected regions of the esophagus in achalasia led to speculation of an autoimmune pathogenesis. There is evidence of inflammatory infiltration of the myenteric plexus. Immunohistochemical staining characterized the infiltrative cells as T cells positive for CD3 and CD8. Allgrove first reported the triple A or Allgrove's syndrome in 1978 when he described two pairs of siblings presenting with achalasia, alacrima, and adrenal insufficiency. [39]

Achalasia can also occur as part of motility disorders affecting multiple regions of the gastrointestinal tract. Esophageal dysmotility and achalasia have been described as part of multiple endocrine neoplasia (MEN) type 2B and von Recklinghausen's neurofibromatosis.[40]

Chaga’s disease is a parasitic infection caused by Trypanosoma cruzi that is endemic to regions of Central and South America and Mexico Cancer is an important

cause of secondary achalasia[41]. It can produce achalasia or an achalasia-like picture by one of three mechanisms. The first and most common is by direct mechanical obstruction of the distal esophagus. This is referred to as pseudoachalasia and has been described with a number of cancers.

Exact aetiology and pathophysiology is not completely understood. The histological abnormalities have been described in the brain stem, the vagus nerve, myentric plexus and the smooth muscles of the oesophagus. During oesophageal manometric studies, the lower oesophageal sphincter exhibits a variety of functions and pharmacologist abnormalities that resemble parasympathetic denervation. [42]

**ENDOSCOPIC APPEARANCE [43,44]**

In patients with suspected achalasia, endoscopy is performed to exclude pseudoachalasia, that is, GEJ tumors that can mimic primary achalasia.

The diagnosis can be suggested by a constellation of findings, including a feeling of resistance at the LES that suddenly gives way, with the endoscope "popping" into the stomach, due to the contracted LES smooth muscle.

The spectrum of endoscopic findings worsens as the disease progresses, from a normal-appearing esophagus to a dilated and tortuous "sigmoid" esophagus. There is often retained fluid or food and a longer period of fasting prior to endoscopy may be needed. The mucosa of the esophagus often appears normal, but stasis of fluid, food, or pills may cause friability, erosions, or Candida esophagitis.

Retention of food or secretions strongly suggests the absence of orderly peristaltic activity. The cardia does not open during air insufflation.

## OESOPHAGEAL VARICES

### DEFINITION

Dilatation of submucosal oesophageal venous plexus at gastro oesophageal junction. They are prominent and located within the mucosa. The direction of the blood can be hepatofugal (uphill) with portal hypertension and hepatopetal(downhill).

### ENDOSCOPIC APPEARANCE [45]

They present_as a string of pearls with bluish hue, frequently however a tortuous appearance of mucosal folds that taper are the only clue to the presence of varices. The three stages, German classification by Henning, et al (1972) is as follows:

Stage I: Tortuous veins clearly visible, especially in head down position but not protruding above the mucosal surface.

Stage II: Tortous veins are evident especially in the distal oesophagus and extending to the cardia protruding slightly.

Stage III: Large, very tortuous veins protruding into the lumen, frequently extending to the cardia into the gastric fundus.

The staging of the varices is necessary for documenting any stage with time, particularly after a shunt operation.

Injection sclerotherapy has been used for decades. Many adjuvant devices have been described, including overtubes with a lateral window and the use of

balloons—either in the stomach to compress distal varices or on the scope itself to permit tamponade if bleeding occurs.[46] Injections are given directly into the varices, starting close to the cardia (and below any bleeding site) and working spirally upwards for about 5 cm. Each injection consists of 1–2 mL of sclerosant, to a total of 20–40 mL.Precise placement of the needle within the varix (as guided by co-injection of a dye such as methylene blue or by simultaneous manometric or radiographic techniques) may improve the results and reduce the complications.. The esophago-gastric junction can be compressed directly if the endoscope is retroflexed.[47]

**Sclerosants**

Several chemical agents are available as sclerosants. Sodium morrhuate (5%) and sodium tetradecylsulfate (STD) (1–1.5%) are popular in the USA. Polidocanol (1%), ethanolamine oleate (5%) and STD are widely used in Europe [48]

Endoscopic polymer injection is another alternative. These polymers solidify almost immediately on contact with aqueous material. The endoscopist and nurse must use them carefully to provide an effective injection without gluing up the endoscope.

Results are excellent, especially in gastric varices (which do not respond well to standard sclerotherapy). Many use this technique also in patients who relapse quickly after banding or sclerotherapy in the acute situation. Other ‘glues’ are being evaluated. [49]

**Variceal banding**

This has become popular because it causes fewer ulcers and strictures than sclerotherapy. The device consists of a friction-fit sleeve on the endoscope tip, an inner cylinder preloaded with elastic bands and a trip wire that passes up the endoscope channel.

The varix is sucked into the sleeve, and the band released by pulling on the wire. Multiple bands are applied in an upwards spiral fashion every 1–2 cm. Banding can be applied also to gastric varices and to small ulcers (e.g. Dieulafoy lesions). [49]

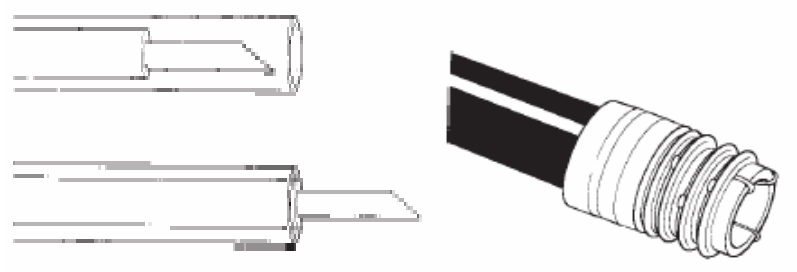


**Fig 12 A: Retractable sclerotherapy needle. B. An esophageal banding device**

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**CANDIDA ESOPHAGITIS:**

Endoscopic examination is the most sensitive and specific method of diagnosing esophageal candidiasis. [50]

The most common finding is the whitish plaques of varying size scattered throughout the oesophagus with a great density in lower 2/3$^{rd}$.

**ENDOSCOPIC GRADING OF CANDIDA OESOPHAGUS. [51,52]**

Grade I –raised whitish plaques less than 2mm diameter without ulcer.

Grade II-raised whitish plaque >2 mm diameter without ulcer.

Grade III- confluent nodular & linear plaques with ulceration.

Grade IV-GIII findings with narrowing of Oesophageal lumen.

## OESOPHAGEAL POLYPS

They are the fibrovascualr polyps developing primarily in the cervical region of the oesophagus. They are collection of adipose and fibrovascular tissue with squamous epithelium overlying them.[53]

These lesions are recognized with barium radiographically or endoscopy.

## CARCINOMA OF OESOPHAGUS

Esophageal adenocarcinoma develops in approximately 0.5 percent of patients with Barrett's esophagus per year [54]. This is a tumor found predominantly in white men, among whom the frequency of esophageal adenocarcinoma has inexplicably quadrupled over the past few decades. Although gastroesophageal reflux disease is the main recognized risk factor for this cancer, presumably because it causes Barrett's esophagus, it is not clear whether the rising incidence of the tumor is due to an increasing frequency of gastroesophageal reflux disease in the general population. [55,56] The diagnosis of Barrett's esophagus is based on the endoscopic findings of columnar epithelium lining the distal esophagus and confirmed by the presence of specialized intestinal metaplasia in esophageal-biopsy specimens [57]. To document the finding of columnar epithelium in the distal esophagus, the endoscopist must identify both the squamocolumnar and gastroesophageal junctions

## HELICOBACTER PYLORI AND BARRETT'S ESOPHAGUS

Helicobacter pylori infection causes a chronic gastritis that is associated with the development of intestinal metaplasia and cancer.H. pylori does not infect the esophagus, however, and its presence is not associated with an increased risk of Barrett's esophagus or esophageal adenocarcinoma. In fact, some data suggest that gastric H. pylori infection may protect the esophagus from the effects of acid reflux, perhaps by decreasing gastric acidity. Currently, routine screening for or treatment of H. pylori infection is not recommended in patients with gastroesophageal reflux disease and Barrett's esophagus. [58]

Endoscopic appearance [59]

Carcinoma of the oesophagus can present in one of the three ways:

- Exophytic
- Ulcerative
- Infiltrating.

The infiltrating carcinomas which tend to extend in the radial direction by undermining mucosa are difficult to diagnose even on endoscopy.

In 1973, Siefant and Savay and Miller (1977) reported endoscopic appearance of carcinoma in situ, within the oesophagus, they enumerated following criteria:

a. Discrete changes in mucosal colour(red, white, yellow, green).
b. Surface appearance (rough rather than smooth).
c. Alteration in mucosal pliability (card board like).
d. Increased vascular friability (small bleeding points).
e. Irregular surface (elevated and depressed areas).

The diagnostic difficulties arise mainly with carcinomas of the cardia that extend into the oesophagus causing high grade stenosis. The tumour itself can only be suspected but cannot be visualised. Hence, target biopsy would be taken with thin calibre paediatric endoscope with inversion manoeuvre.

The role of endoscopy lies not only in the histological diagnosis of malignant tumour but also in detecting certain complication[58] eg.

1. Bolus obstruction with retention of food may cause complete obstruction when growth is stenotic.
2. Carcinoma cardia involving the terminal oesophagus may be associated with reflux oesophagitis.
3. Tracheo oesophageal fistula in mild oesophagus carcinoma.
4. For the purpose of differential diagnosis from:
    a. Involvement from the bronchogenic carcinoma and malignant mediastinal tumour.
    b. Tuberculosis node breaking into the oesophagus may occasionally be confused with a necrotizing oesophageal carcinoma.

## HIATUS HERNIA

### DEFINITION

An intermittent or permanent displacement of variable portion of intra abdominal oesophagus or stomach through the oesophageal hiatus into the thorax. [59] Dyspepsia accounts for 10-40% of general population. Peptic ulcer disease is found in 5% to 15% of dyspeptic patients.

Dyspepsia accounts for 20-40% of all Gastroenterologist consultation. Endoscopy forms the important procedure for assessment of dyspepsia.

### ENDOSCOPIC APPEARANCE

The endoscopic land marks for the diagnosis of axial hernias are the ring structure described by Wolf (1973) on radiograph. The ring A (the border between the tubular oesophagus and the vestibulum) cannot be recognised on endoscopy. The B ring (junction between the columnar gastric and the squamous oesophageal epithelium (Schatzki's ring) can frequently be seen. There is bell shaped expansion of the lumen between the B ring and diaphragmatic hiatus and the gastric mucosal folds can be seen to slide into this during deep inspiration. When the distance between the hiatus and the mucosal junction exceeds 3cms, sliding (axial) here in positive if the hernia is present. The test is as follows.

The patient performs repeated inspiration efforts through the nose, the B ring then becomes more prominent. The inversion manoeuvre is of decisive importance in diagnosing pure Para oesophageal hernia.

In those cases the shaft of the instrument is closely surrounded by the cardia and the hernia is seen towards the left.

Endoscopy also helps in detecting complications

1. Malignancy in hiatus hernia (which is always adenocarcinoma)
2. Peptic ulceration or mechanically induced ulceration.
3. Obstruction due to rotation.

## MALLORY WEISS SYNDROME

### DEFINITION

Characterised by longitudinal mucosal tears at the oesophago gastric junction.

### ENDOSCOPIC FINDINGS

Findings of the mucosal tears of varying width near the oesophago gastric junction. Blood is usually seemed to ooze from these lesions. Repeat examination after few days show linear ulcers that heal completely within 3 weeks.

## CORROSIVE INJURY OF THE OESOPHAGUS AND STOMACH

### ENDOSCOPIC APPEARANCE[60]

Early endoscopy plays an indispensable role in assessing the location and extent of damage, use of thin paediatric endoscope eliminates risk of perforation in such cases.

Endoscopy provides the following information between $2^{nd}$ and $3^{rd}$ days

1. Extent and depth of corrosive injury.
2. Mucosal gangrene (brown black discoloration)
3. Impending perforation.

Endoscopy at the end of one week reveals the beginning of demarcation of deep ulceration. Endoscopy at the end of 2nd week reveals the early development of stenosis and can be assessed.

**ENDOSCOPIC STAGING**

Stage I: Swelling and erythema of mucosal folds without ulceration and fibrinous exudates.

Stage II: Superficial ulceration with fibrinous exudates.

Stage III: Viscus exudates covering an ulcerated and haemorrhagic mucosa with necrosis of deeper layers. Stage I and II heal within 7-9 days without scar formation.

**STOMACH[61]**

**GASTRITIS**

It is a mucosal inflammation. Most common cause is H.pylori and other causes include alcohol, NSAID, T.B, Chrons disease and bile reflux.

Endoscopic appearance of acute gastritis is characterised by marked reddening of the mucosa with oedematous swelling of the folds. In some cases the number of whitish spots is also seen on the mucosal surface. In others multiple erosions distributed all over the stomach. However chronic gastritis cannot be diagnosed with precision either on x-ray studies or on endoscopy. It has to be substantiated by multiple biopsies.

**EROSIONS**

**DEFINITION**

An erosion is a mucosal defect that does not extend beyond the muscularis mucosa and heals without scarring (both these characteristic distinguish an erosion from an ulcer).

Endoscopic appearance is characterised by mucosal defect. Haemorrhagic punctuate areas of intra mucosal bleeding precede the formation of acute erosion. Erosion may be single or multiple and are commonly found in the antrum and the corpus (body). The absence of a surrounding inflammatory infiltrate is the hallmark of the acute erosion. In chronic erosion, the margins surrounding it are raised to variable extent. About 80% of erosions detected during routine endoscopy are uncomplicated chronic erosions with a central necrotic areas surrounded by a red ring of mucosa and regularised margin. It is the commonest in the antrum along the greater curvature, anterior and posterior wall. The points differentiating the chronic erosions from a gastric ulcer are as follows: the outline of the erosion are deformed during the passage of peristaltic waves (as they do not extend beyond muscularis mucosa).
Outline well demarcated and round to oval in shape.

**HEALING ULCER**

Covering folds towards the ulcers, linear in shape with its base red initially and then whitish and finally an absence of inflammatory reaction.

Esophagogastroduodenoscopy (EGD) is advised in patient’s older than 50 years with new onset of dyspepsia and in patients of any age with features that

suggest significant structural disease or malignancy. Endoscopic biopsy is taken when the appearance of gastric ulcer is suggestive of malignancy. Malignant ulcer is seen more commonly on prepyloric region and greater curvature with irregular margin and discoloured base and rigid folds. Progressive reduction in fold diameter, abrupt termination (do not reach the margin of an ulcer) and fusion of folds, all suggest malignancy.

Gastric carcinoma may present in any of the following ways:

1. Polypoid
2. Ulcerating
3. Infiltrating
    a. Ulcerating
    b. Diffusely infiltrating

**AN ULCER IS IRREGULAR (VIDE SUPRA)**

Exophytic growth may assume different shapes and dimensions. The mucosa covering shows polypoid or ulcerative changes with the necrotic area of the top. The endoscopic diagnosis of schirrous carcinoma is difficult (as the tumour usually expand in the submucous and subserous planes).

**GASTRIC CANCER[62]**

On a global scale gastric cancer is still a very common cause of death. It is now generally accepted that chronic H. Pyloric infection is one of the leading cause ultimately leading to gastric malignancy. Early gastric cancer has a excellent prognosis and advanced gastric cancer has dismal prognosis. The rationale for surveillance endoscopy in patients with gastric ulceration is based on the fact that

some gastric ulcers may initially appear endoscopically and histologically benign but may later prove to be malignant.

According to the Japanese classification the gastric cancer can be distinguished more macroscopically into three basic types.

Type I: is a protruded type.

Type II: is a superficial type.

- 2a – Elevated
- 2b-Flat
- 2c-Flat depressed

Type III: Excavated type.

The over all staging accuracy of endoscopy in early gastric cancer is approximately 70%.

**POST OPERATIVE STOMACH**

In this heading, the oesophago gastroduodenoscopy is indicated for the following aims post gastric surgery complications:

1. Haemorrhage
2. Recurrent ulceration
3. Obstructive e.g.
    - Biliary gastritis
    - Retrograde intussusceptions.
    - Afferent loop obstruction
    - Stoma oedema
    - Volvulus

**DUODENUM**

**ENDOSCOPIC APPEARANCE OF EROSION, ULCERS AND SCARRED BULBS**

Acute erosions (small mucosal defects without a surrounding inflammatory reactions, multiple, and appear as small haemorrhagic spots to the endoscopist as opposed to chronic erosions which consist of a depressed centre covered by fibrinoid necrosis and surrounded by an elevated margin). They were common as compared to chronic erosion but are less significant than in the stomach.

Macroscopic appearance of the ulcer: some ulcers may be round, oval or linear. Some ulcer may appear as small white lesions distributed over a reddened mucosa. These are known as salt and pepper ulcers.

Most duodenal ulcers occur in the bulb and commonly situated in its anterior wall. Larger ulcers heal with extensive scarring and deform the bulb with the luminal narrowing and formation of pseudodiverticulae.

Surveillance endoscopy will be considered in patients with duodenal ulceration, who experience persistent symptoms despite on appropriate course of therapy, specifically to rule out refractory peptic ulcers and ulcers with non-peptic etiologies.

## PERIAMPULLARY CARCINOMA [63]

Polypoid papillary adenocarcinoma of the papilla are easily recognised on endoscopy. Biospy can be obtained and it is diagnostic. The endoscopic and biopsy diagnosis of ulcerated carcinoma is equally straight forward.

## THE POST OPERATIVE PAPILLA: [63, 64]

After papillotomy (surgical or endoscopic) can be inspected easily in the follow up period. It appears as a gaped opening, which allows easy intubation and ectropion like papillary folds are frequently found at the incision.

Sphincteroplasty usually can be recognised by the presence of orifice located in the area of scarring, they represent the termination of the choledochus and of the main pancreatic duct. Surgically created bilioenteric anastomosis appear as round or slit like openings. The supra duodenal anastomosis are best seen with a forward viewing and a retroduodenal with a side viewing endoscope.

## DUODENAL DIVERTICULA

Visualisation of diverticula is simple if ample air insufflation is used. Direct inspection is possible when the diverticulum is large and wide necked. Biopsies are not advised because the wall consists only of mucosa and parts of the muscularis mucosa (therefore, the chances of perforation). Enterolith or blood clots may be seen at the fundus of the diverticulum.

## PRINCIPLES AND CONSTRUCTION OF ENDOSCOPY

There are two types of endoscopes:

1. Red and
2. Flexible Fiber Scopes.

### 1. JACKSON'S RIGID ESOPHAGOGASTROSCOPE:

It is a long 60cms long metal tube open at lower end. One that is used for an adult (8 mm *60 cms ) has two auxiliary channels one for gastric content aspiration and the other for introducing air into stomach. Aspiration channel runs the full length of the instrument while air tube opens in to the lumen of the gastroscope at its proximal end, and is closed by glass plug to prevent the escape of the air during the examination. Also certain special types of forceps and other instruments can be passed through the tube for the removal of foreign bodies and taking biopsy under direct vision. [65]

### 2. FLEXIBLE FIBRESCOPES.

Flexible endoscopes are of further two types.

a. Which permit direct visualization
b. Those which examine only by photographic gastrocameras.

The viewing instruments can be subdivided into three basic types

1. Those which transmit the image directly through an opened tipped tube.
2. Those in which the image is passed through a series of lenses.
3. Those which transmit image through coherent bundles of glass fibers, i.e. fiber optic endoscope (Forward viewing and side viewing instruments and to this is added recently is an electronic video endoscopy system utilizing CCD (i.e. charge coupled device) of which first clinical trial was carried out at the Cleveland clinic by Sivak, 1984.

**FIBER OPTIC ENDOSCOPES:**[66]

The flexible endoscope is a complex tool. It consists basically of a control head with eye piece and controls, and a flexible shaft, which has a three manoeuvrable tip. The tip is connected to a light source, via a connecting umbilical cord through which pass other tubes transmitting air, water and suction etc. Accessories include

**FLEXIBLE BIOPSY FORCEPS**

For the passage through the instrument, a side arm for assistance viewing and cameras. The image is transmitted either by fibreoptics or electronically from CCD video chip (Charge Coupled Device).

**THE PRINCIPLE:**

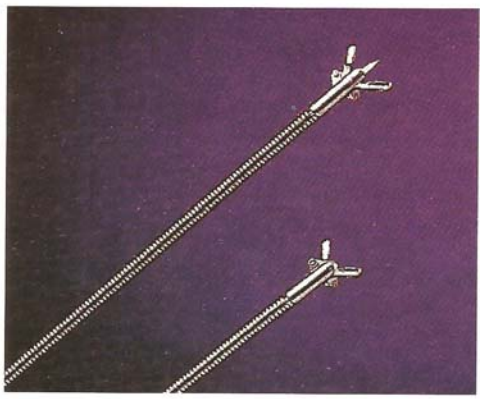
The principle that an image can be transmitted by a bundle of glass fibers was known prior to the development of lens gastroscopes. The transmission of light through the fibreoptic bundle is based upon the fact that a single fiber in space will pass a light beam by internal reflection regardless of how the fiber is bent. This occurs, because air has a lower refractory index than glass fibres, rather than a single fibre is used, light will be lost at each point where one fibre touches another, because the glass air interface is lost.

The most important part of the endoscope is the fibre optic bundle ,which consists of more than 2,00,000 glass coated fibres of glass ,each about 0.001inch (10 mm) in diameter ,going from end to end and bound firmly together in the same spatial relationship ,but free in between (a coherent bundle) so that the bundle is completely flexible some transmit the light ,other transmit the image by a series of repeated

internal reflections along with the length of the bundle . Faithful transmission of an image depends upon the spatial orientation of the individual fibres being the same at both ends of the bundle a coherent bundle. Each individual glass fibre is coated with glass of a lower optical density to prevent leakage of light from within the fibre , since this coating does not transmit light , it and the space between the fibres cause a dark packing fractions which is responsible for the fine mesh frequently apparent in the fibre optic image . For this reason the image quality, though excellent, can never equal to that of a rigid lens system .However fibre optic image carrying system is extremely flexible, and image can be transmitted even when the bundle is tied in a knot.

Each fibre transmit a minute part of the image as a separate spot of light and contains it within the glass core of the fibre by a process known as total internal reflections .The image or picture at the other end is made up of these individual spots of light. The image is focused on to the fibre bundle by a distal lens which is fixed and a pinhole aperature gives a depth of focus from a 10 – 15cms down to about 3mm. The image reconstructed at the top of bundle is transmitted to the eye via a focusing lens which provides a correction of refraction.

There are two types of fiberscopes. Forward viewing is best for inspection and side viewing endoscope is needed for obtaining biopsy from the lesser curvature and posterior wall of the stomach for inspection of duodenal bulb for probing papilla of water and inspection of distal duodenum.



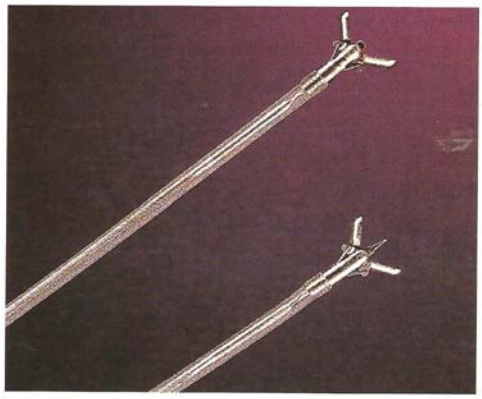


**Fig 13 A,B: Maxum reusable forceps (Wilson-Cook), used for biopsy and foreign – body retrieval in the upper gastrointestinal tract and colon**

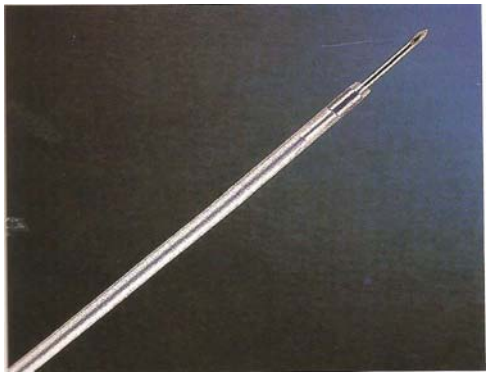


**Fig 14: Aspiration needle (Wilson – Cook)**

**Fig 15: Cytology brushes (Wilson-Cook)**

The present day endoscope contains:

1. Illumination system
2. Image transmission system

## ILLUMINATION

No image is observed unless the area is illuminated by the light transmitted from an external high intensity source through light carrying bundles .Since these light bundles do not transmit a spatial image the fibres continue within than need not be coherent and are randomly arranged. Light bundles run from the tip of the instrument through its connecting umbilical cord directly to the point of focus of the lens .These glass fibres are coated from outside by a cadding which does total internal reflection of the light .The bundle only sub serves the function of light transmission.

Illumination is provided either by a xanon arc (300w) or a halogen filled tungsten filament lamp (150W) focused by a parabolic mirror on to the face of the bundle the transmitted intensity is controlled by a filters and or a mechanical diaphragm. The light source contains a cooling fan and a pump for the air and water supply. Small sources are mobile and chip and provides sufficient illumination standard photography. Large light source are necessary for television application while using fibrescopes or video endoscopes. These utilize high temperature xenon arc lamps which give a bluish light.

In every manoeuvre the scope loses few of its fibres. These are later evident as dark spots at the end of 1000 scopic examination. The scope is no more in a usable conditions.

## THE OBJECTIVE LENS

This lens focuses the desired image on the distal end of the fibre bundle. Objective lenses may have a variable or fixed focus ,each lens also has a maximum diaphragm opening of number which is much larger than the opening provided by the

fixed diaphragm. If an instrument is designed to be used solely within the narrow confines of the duodenum, the prime focus distance can be set quite close, perhaps one cm .This would provide sharp close up views of the mucosa and reasonably good views at almost any distance encountered in the organ .A much larger prime focus distance setting would be used in an instrument solely for the stomach.

**OCULAR LENS**

This transmits the image from the end of fibre bundles to the eye or to an external camera. Ocular lenses serve two purposes. First to magnify the image produced on one end of the fibre bundle and second to correct for defects in the vision of the endoscopist. These lenses all have an infinity setting which must be used for photographic purpose. The major variable in ocular lenses is that of magnification. Excessive magnification will accentuate the structure of the fibre bundle and provide a distraction to viewer. A second limitation in magnification is the amount of light available which in turn is related to the intensity of light provided by the fibre.

The Olympus instrument incorporate a unique type of ocular lens which can be positioned by an adapter which is attached to the external camera so that ocular lens can substitute for the camera lens and focus the image directly on the photographic film. It is a common practice to use half frame camera for endoscopic photography in order to economise on film costs and to compensate for the reduction in image size (produced by half frame camera by using a fairly long 70-100 mm lens. On the external camera to increase the image size).

## TIP DEFLECTION

Another consideration in fibro scopes manufacture is a mechanism for tip deflection. The newest ACMI instrument provides over 180 tip deflection in four planes and somewhat lesser degree of deflection in the intermittent planes between the primary planes. The deflection has got limitation because of less flexibility of fibre bundles and increasing breakage with more deflection. The second problem with deflection is the difficult of passing biopsy forceps through the deflected tip.[66]

## FLEXIBILITY

The next feature is flexibility .There is a definitely an optimal rigidity for multipurpose instrument. A more rigid scope is ideal for visualization of the lesions in the region of gastro oesophageal junction where the 1:1 response of the tip of such instrument will permit easy positioning even in presence of considerable motor activity. On the other hand, a more rigid scope when inserted into the stomach will bury itself in the greater curvature and tend to cause an uncomfortable over distention of the stomach and is more likely to cause an injury. In contrast a more flexible scope will be difficult to control in the region of gastro oesophagaul junction and will tend to curl and loop back on itself, when an attempt is made to pass it in the distal antrum. The rigidity of the tip has effect on deflection, mechanism of the tip. A more rigid scope will properly maintain the fulcrum, the junction of the connecting tube with the deflecting tip of the instrument, thus rendering the deflection mechanism ineffective. The new long forward viewing scope have optimal flexibility.

## FIBRE OPTIC BUNDLE

The image transmitting element of the fiberscope is a bundle of 20,000 or more large coated glass fibres each about 1/ 100 inch diameter each going from end to end so arranged that optical orientation of the fibres at each end of the bundle is the same.The fibres are bound to each other at the ends so that bundle is completely flexible. There is no distortion of the transmitted image by any degree of the bending or flexion between the fixed ends. Each fibre transmit a minute part of the image as a separate spot of the light and contains it within the glass core of the fibre by a process known as total internal reflections. The image or picture at the other end is made up of these individual spots of light so that the quality of the picture depends on the exactness of the orientation of the fibres to each other. Compared with a multiple lens system of equivalent length, fibre bundles are also being used to transmit large amount of light from external high intensity light source to supply brilliant cold illumination. [66]

## THE FIBRESCOPES

There has been a profusion of instruments in the last years with a strong tendency towards multipurpose instruments .These instruments are of essentially basic designs all using fibre bundles of 1.5 to 3 mm diameter for illumination and 2- 5mm optical bundles for image transmission. At the distal end the image is focused by lens system that has fixed focus arrangements in some instruments and variable, externally controlled focusing system in others. These are essentially two types of instrument distinguished by whether distal or lens looks straight ahead (Oesophagscope and (Oesophagoduodenoscope) side away (Gastroscope ), the distal 7- to 15 cms segment

is controllable in one plane or in all ,planes by a single or a pair of external controls the degree of flexion the later forming J or U configuration. [66]

The diameter of the instrument is from 7 to 12 mm the instrument may also be distinguished by its working length varying from 65cms to 105 cms .The shorter forward viewing instrument is useful only for the oesophagus .The 75 – 90 cms side viewing instruments are essentially gastro scopes and are best instruments for complete examination of the stomach .The 105 cms instruments are of two types. The end viewing instrument is being used for examining the oesophagus, stomach and duodenum. It has a fairly small field and thus does not always provide a thorough view of the whole stomach .The side viewing instruments of the similar length are of use only in the stomach and duodenum. They are the only instruments that allow intubation of the ampulla of vater, and in certain cases. This provide better visualization of the duodenal bulb. The proximal end of the instrument has a lens for enlarging the image.

# MATERIAL AND METHODS

This study entitled 'Role of endoscopy in evaluating upper gastrointestinal tract lesions in rural population' was conducted in 600 cases at R.L.Jalappa & Research Center Kolar during the year Dec-2011 to Sept-2013.

In all the cases the endoscope used was the video endoscope OLYMPUS CV-70 connected to DELL LCD monitor (21") and HP PC.

Patients were selected at random for the study and fell into two categories

1. Inpatients - referred and emergency.
2. Outpatients received through OPD.

In some of the cases radiological examination was done prior to endoscopy. In both the categories the cases which presented with history and clinical findings suggestive of upper GI tract disorders were accepted for endoscopic examinations.

**SYMPTOMS**

1. Upper abdominal pain.
2. Vomiting.
3. Haematemesis/malaena.
4. Dysphagia.
5. Lump in abdomen.
6. Anorexia/weight loss.
7. Sensation of fullness after meals.
8. Weakness and tiredness.
9. Retrosternal burning with regurgitation.

**SIGNS**

1. Epigastric tenderness
2. Supraclavicular lymphnodes
3. Lump in upper abdomen
4. Visible upper abdominal peristalsis
5. Ascites
6. Jaundice

**INVESTIGATIONS**

Following investigations were routinely done before endoscopic examination:

1. Hemoglobin
2. Stool for occult blood
3. LFT in jaundice
4. Barium examination (if necessary).

The examination was carried out under local anaesthetic solution using lignocaine viscus 2% spray, sprayed 5 minutes before procedure .

Endoscopic methods of biopsy (wherever necessary) used in our series were multiple quadrant biopsy with a biopsy forceps (especially in cases of suspected carcinoma of the stomach, esophagus, etc.

Photographic studies and video recording were done in cases of any positive and diagnostic findings.

Out of these 600 cases, which were randomly selected, few could be followed up during their course of treatment in the hospital and after discharge for a period varying from 2months to more than a year.

During follow up the main points taken into consideration were

1. Recurrence of symptoms
2. Persistence of symptoms
3. Newer symptoms.

# RESULTS

**Table – 1: Distribution of Patients According to Age**

| Age group | Number of Patients | Percentage % |
|---|---|---|
| **11-20** | 18 | 3 |
| **21-30** | 97 | 16.1 |
| **31-40** | 98 | 16.33 |
| **41-50** | 129 | 21.5 |
| **51-60** | 108 | 18.00 |
| **61- above** | 151 | 25.1 |
| **Total** | **600** | **100.00** |

Of the 600 patients studied, maximum number of patients belonged to age group of 61 years and above (25.1%). The minimum number of patients studied belonged to the age group of 11-20 years constituting 18 cases (3%). The number of patients studied in the age group of 21-30 years constituted 97 cases (16.1%). The number of patients studied in the age group of 31-40 years constituted 98 cases (16.33%). The number of patients studied in the age group of 41-50 years constituted 129 cases (21.5%). The number of patients studied in the age group of 51-60 years constituted 108 cases (18%).

**Graph 1: Age Distribution**

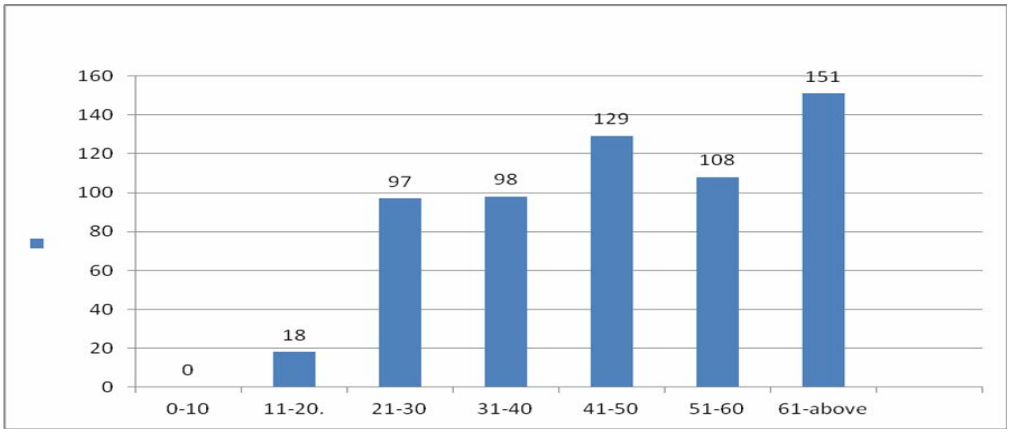


**Table – 2: Distribution of Patients According to Sex**

| Sex | Number of patients | Percentage |
|---|---|---|
| Male | 370 | 61.6 |
| Female | 230 | 28.4 |
| **Total** | **600** | **100** |

Of the 600 patients studied, 370 patients were males (61.6%) and 230 were females (28.4%).

**Graph 2: Distribution of Patients According to Sex**

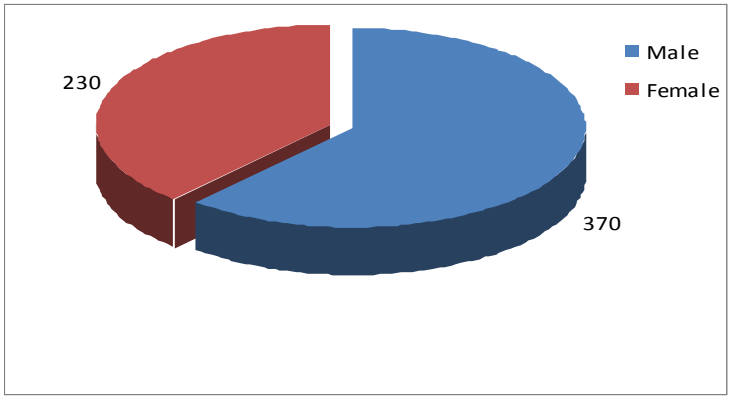


**Table – 3: Distribution of Patients According to Symptoms**

| Symptoms | Number of Patients | Percentage |
|---|---|---|
| Pain abdomen | 258 | 43 |
| Vomiting | 216 | 36 |
| Haematemesis/malena | 42 | 7 |
| Dysphagia | 30 | 5.0 |
| Retrosternal burning/ Regurgitation | 27 | 4.5 |
| Loss of appetite/weight | 12 | 2.0 |
| Weakness/tiredness | 09 | 1.5 |
| Feeling of distention after meals | 06 | 1.0 |
| **Total** | **600** | **100** |

Out of 600 cases studied, maximum number of patients presented with pain abdomen, followed by vomiting, hematemesis and dysphagia. Remaining patients presented with other symptoms retrosternal burning/ regurgitation, loss of appetite/weight, weakness/tiredness and feeling of distention after meals.

## Graph 3 : DISTRIBUTION OF PATIENTS ACCORDING TO SYMPTOMS

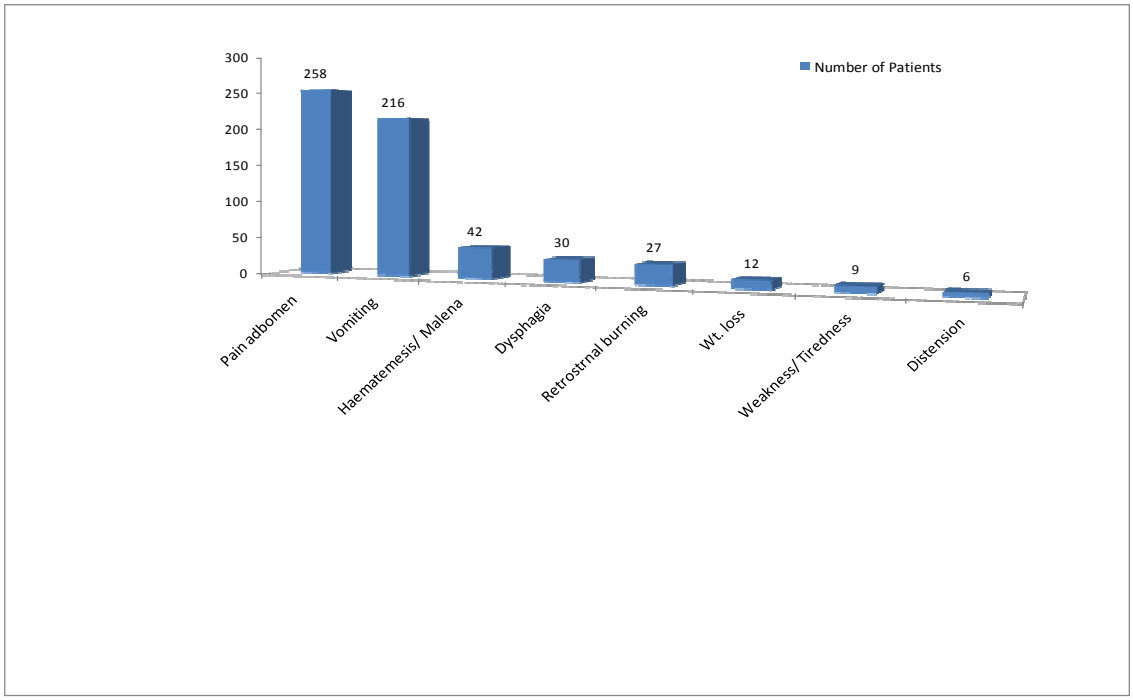


**Table 4: Distribution of Patients According to Aetiology**

| Aetiology | Number of Patients | Percentage |
|---|---|---|
| Reflux oesophagitis | 41 | 6.8 |
| Reflux oesophagitis with gastritis | 30 | 5.9 |
| Oesophageal varices | 09 | 1.5 |
| O. Candidiasis | 25 | 4.16 |
| Stricture oesophagus | 02 | 0.33 |
| Carcinoma oesophagus. | 27 | 4.5 |
| Acute diffuse gastritis | 74 | 12.33 |
| Chronic gastritis | 75 | 13.8 |
| Atrophic gastritis | 04 | 0.6 |
| Reflux bile gastritis | 36 | 6 |
| Erosive gastritis | 43 | 7.16 |
| Pyloric stenosis | 04 | 0.6 |
| Chronic gastric ulcer | 05 | 0.8 |
| Duodenal ulcer | 15 | 2.5 |
| Carcinoma stomach | 28 | 4.6 |
| Foreign body stomach | 04 | 0.66 |
| Duodenitis | 37 | 6.16 |
| Gastroduodenitis | 20 | 0.6 |
| Duodenal polyp | 06 | 1 |
| Worm infestation | 10 | 0.6 |
| Carcinoma duodenum | 03 | 0.5 |
| Duodenal diverticula | 03 | 0.5 |
| Oesophageal polyp | 01 | 0.16 |
| Normal study | 88 | 14.5 |
| Recurrence | 02 | 0.33 |
| Pt not prepared well | 02 | 0.33 |
| Un co-operative pt's. | 02 | 0.33 |
| Indentation of stomach. | 02 | 0.33 |
| Indentation of oesophagus | 02 | 0.33 |
| **Total** | **600** | **100** |

**Table-5: Distribution of patients according to sex and benign upper GI lesions:**

| Sex | Oesophagitis | Gastritis | Duodenitis |
|---|---|---|---|
| Male | 50 | 150 | 30 |
| Female | 21 | 86 | 17 |
| **Total** | **71** | **236** | **47** |
| **%** | **11.8** | **39.33** | **7.83** |

Out of 600 patients studied, 71(11.8%) patients had oesophagitis, 236(39.33%) had gastritis and 47(7.83%) had duodenitis. Incidence of these lesions was more in males.

**Graph 4: Distribution of patients according to sex and benign upper GI lesions:**

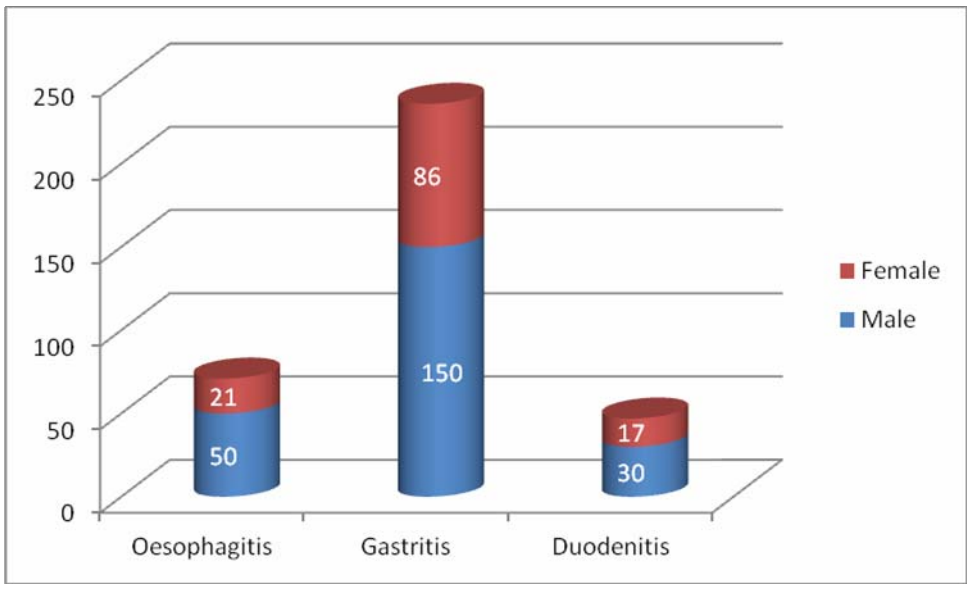


**Table 6: Distribution of patients according to age group and benign upper GI lesions:**

| Age group(yrs) | Oesophagitis | Gastritis | Duodenitis |
|---|---|---|---|
| **0-10** | 00 | 03 | 0 |
| **11-20** | 00 | 10 | 2 |
| **21-30** | 40 | 40 | 12 |
| **31-40** | 20 | 34 | 6 |
| **41-50** | 10 | 29 | 6 |
| **51-60** | 01 | 40 | 10 |
| **61- above** | 00 | 80 | 11 |

Out of 600 cases studied, incidence of oesophagitis was more in the age group 21-30years, incidence of gastritis was more in the age group 60years & above and duodenitis was more in the age group 21-30years.

**Graph 5: Distribution of patients according to age group and benign upper GI lesions:**

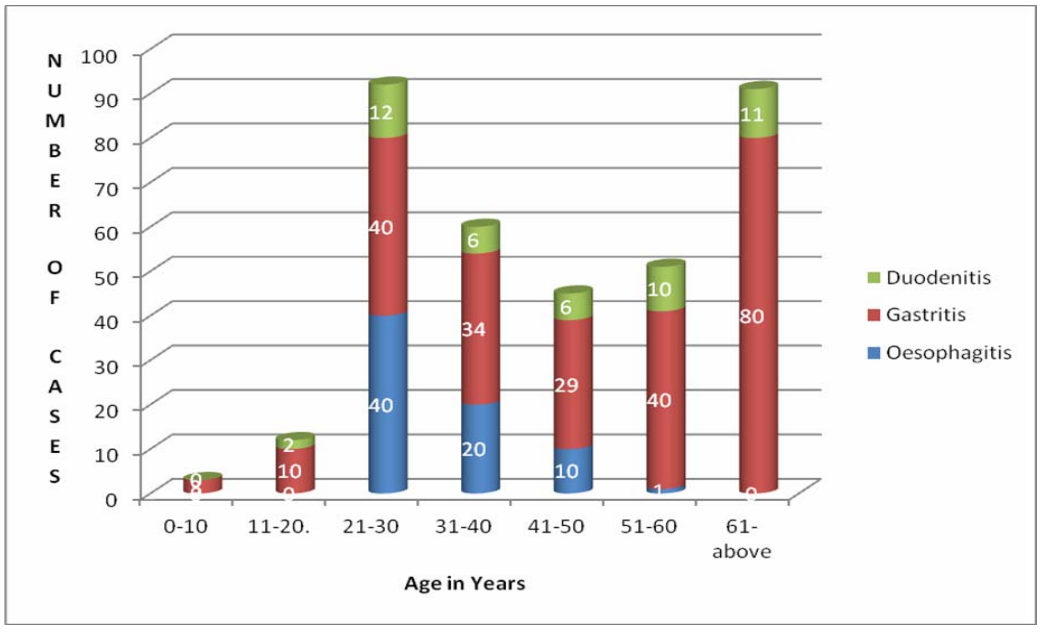


**Table – 7: Distribution of Patients According to Treatment Offered**

| MODALITY OF TREATMENT | NO. OF CASES | PERCENTAGE |
|---|---|---|
| **Conservative treatment** | 592 | 98.6% |
| **Radiation** | 5 | 0.83% |
| **Endoscopic treatment** | 03 | 00.3% |
| **Total** | **600** | **100.00%** |

Out of 600 cases studied, 592(98.6%) patients were managed conservatively,5(0.83%) patients received radiation, and 3(00.3%) had endoscopic treatment of foreign body removal.

**Graph 6: Distribution of Patients According to Treatment Offered.**

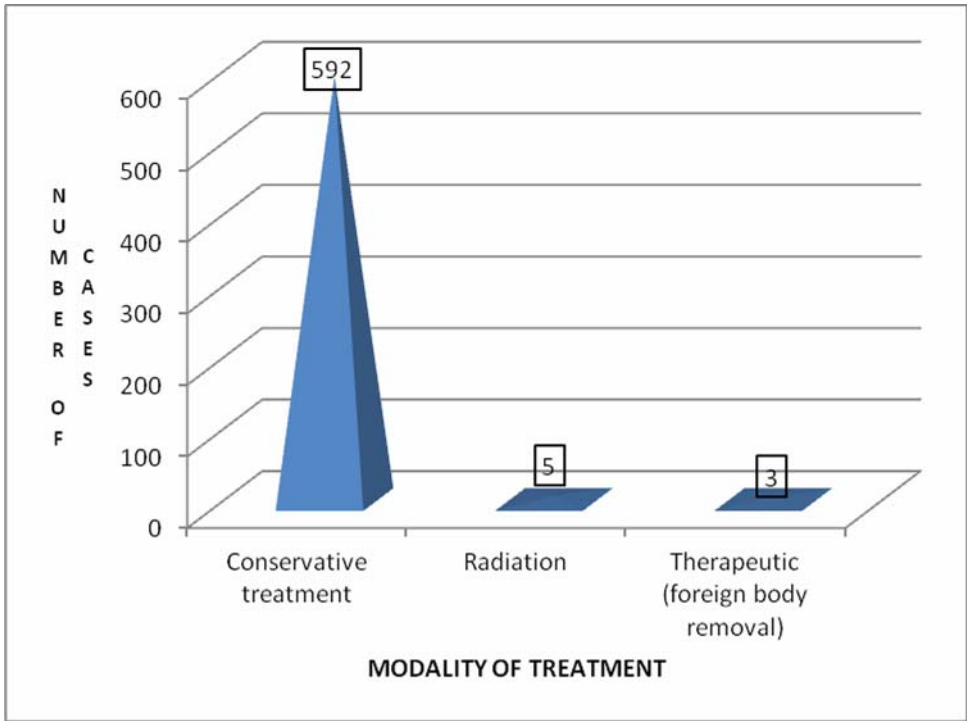


**TABLE 8 : Distribution Of Malignant Lesions Of The Upper GI Tract**

| Type and site | Male | Female | Total | % |
|---|---|---|---|---|
| Carcinoma of Stomach | 20 | 8 | 28 | 4.6 |
| Carcinoma of Oesophagus. | 15 | 12 | 27 | 4.5 |
| Carcinoma Duodenum. | 02 | 0 | 02 | 0.33 |
| **Total** | **37** | **20** | **57** | **9.5** |

Of the 600 cases studied 57 cases were diagnosed on endoscopy as malignant lesions. Of the 57 cases studied 28 cases were carcinoma stomach, in which carcinoma was more of which 20 were seen in males, 8 were seen in females,

Of the 57 cases studied 27 cases were carcinoma oesophagus, of which 15 were seen in males, 12 were seen in females.

Of the 57 cases studied 2 cases were carcinoma duodenum seen in males.

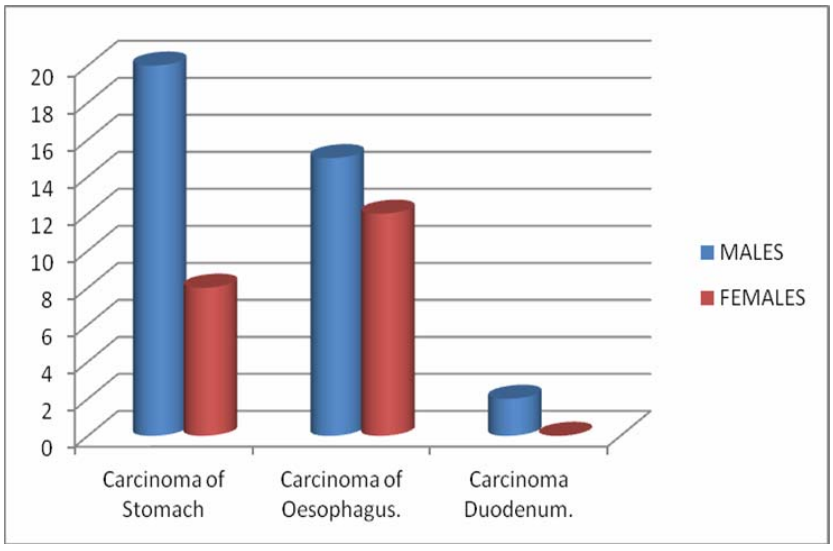
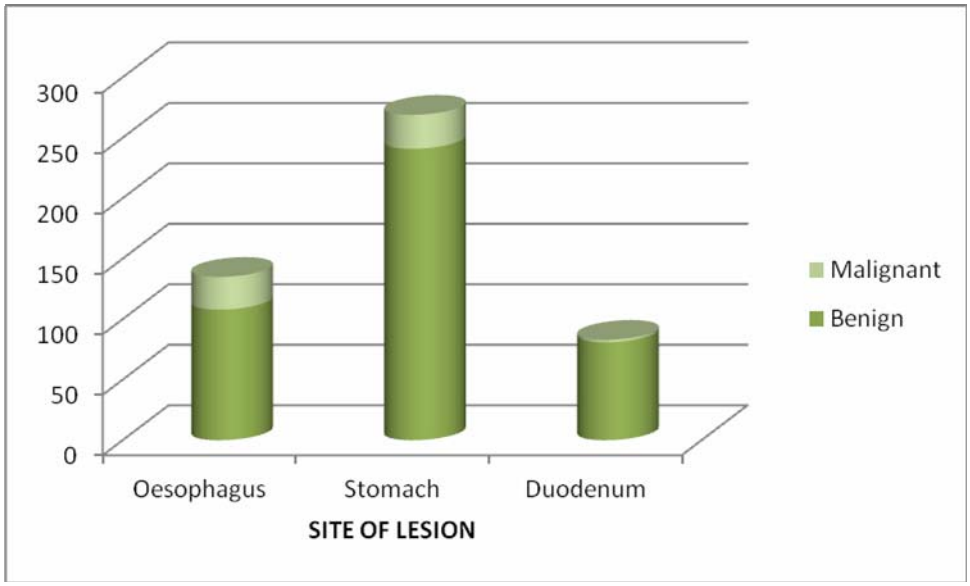


**TABLE: 9 Distribution of Benign and Malignant Lesions in GIT**

| Type of Lesion | Oesophagus | Stomach | Duodenum | Total |
|---|---|---|---|---|
| Benign | 108 | 241 | 81 | 430 |
| Malignant | 27 | 28 | 2 | 57 |
| Total | 135 | 269 | 83 | 487 |

Of the 600 cases studied, it has been observed that the maximum number of gastrointestinal lesions was in stomach followed by oesophagus and duodenum. Benign lesion in oesophagus, stomach and duodenum was seen in 108 cases, 241cases and 81 cases respectively. Malignant lesions of stomach and oesophagus were seen in 28 and 27 cases respectively. Only 2 cases of carcinoma duodenum was ssen in our study.

**Graph 8: Distribution of Benign and Malignant Lesions in GIT**



# UPPER GASTRO INTESTINAL ENDOSCOPY

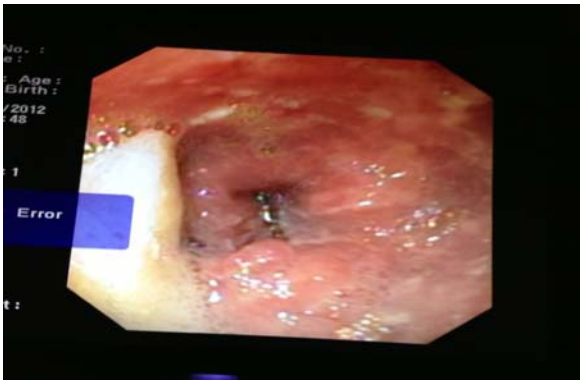



**Fig 16.Antral carcinoma**

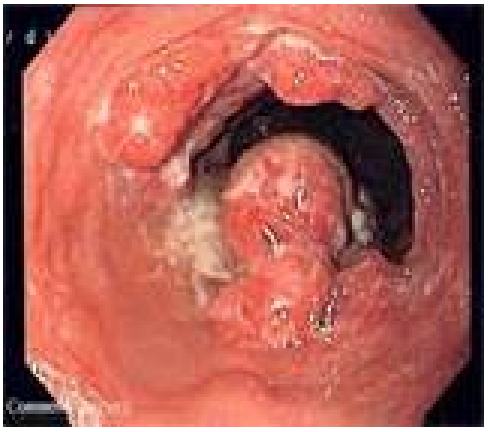


**Fig 17A: Ca oesophagus lower 1/3rd.**

**Fig 17 B: Ca Oesophagus middle 1/3rd.**

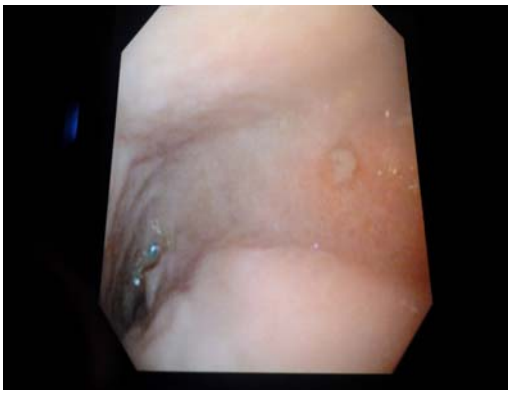


**Fig 18: Duodenal ulcer**

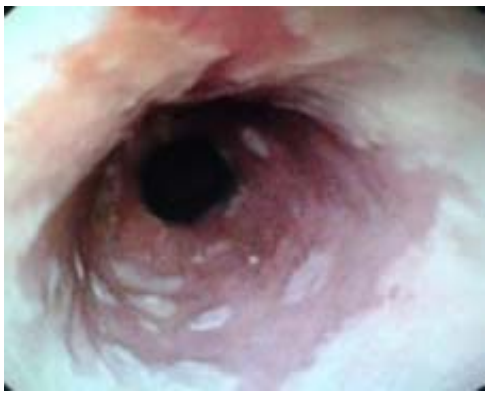


**Fig 19: Oesophageal Candidiasis.**

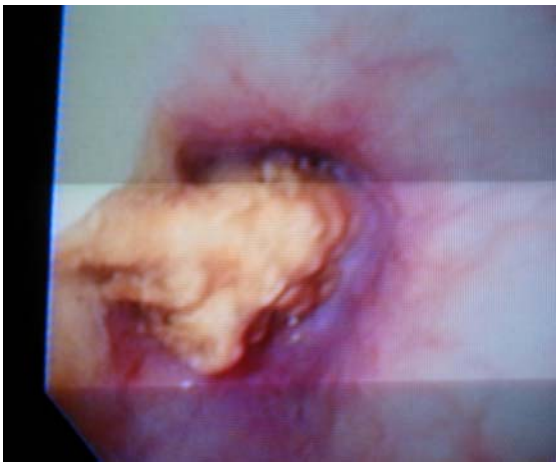


**Fig 20: Foriegn Body Oesophagus.**

**Fig 21: Foreign body in esophagus (Goat's eye)**

**Fig 22: Goat's eye removed with snare.**

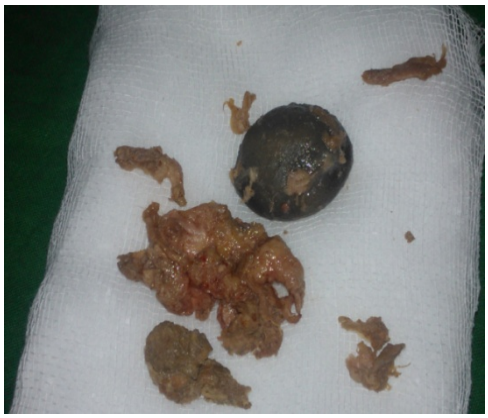


**Fig 23: Specimen removed (Goat's eye)**


**Fig 24: Oesophageal varices.**

**Fig 25: Oesophageal varices.**

**Fig 26: Duodenal polyp.**

**Fig 27A: Ankylostoma in stomach.**

**B. Ankylostoma removed from stomach.**


**Fig 28: Portal gastropathy**

**Fig 29: Oesophageal erosions**

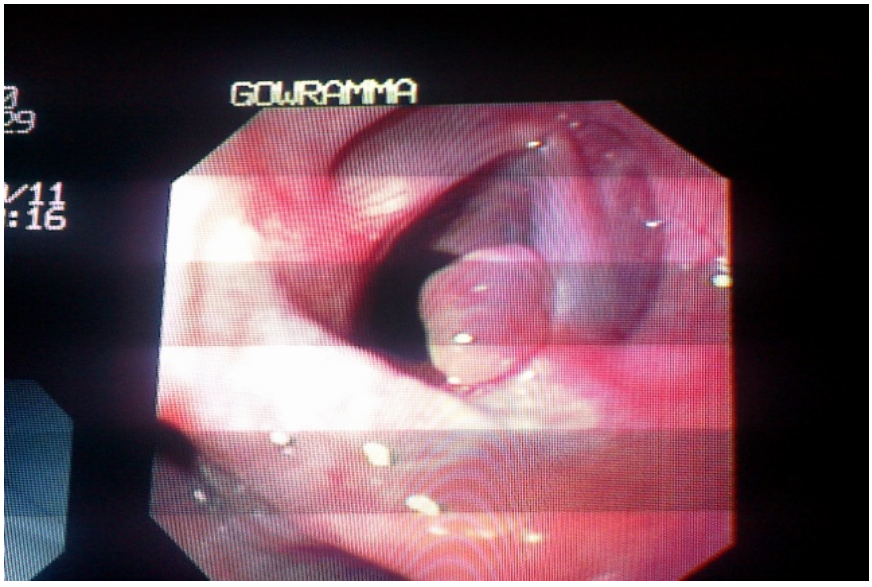



**Fig 30: Vocal cord polyp.**

**Fig 31: Reflux oesophagitis**

**Fig 32: Gastritis**

# DISCUSSION

This is a prospective study conducted in Department of General Surgery from December 2011 to September 2013 at Sri Devaraj Urs Academy O f Higher Education And Centre, R.L. Jalappa Hospital, Tamaka, Kolar.

600 cases who fulfilled the inclusion criteria were included in the study and were subjected to endoscopy. The examination was carried out under local anaesthetic solution using lignocaine viscus 2% spray, sprayed 5 minutes before procedure.

Since fibreoptic endoscopy is simple and safe, we did not encounter any complications. Inadequate or improper explanation makes patient apprehensive, this is true especially with children and elderly. It is most important to have patient's co-operation to complete the procedure safely. Both safety of the patients and instrument is important for the endoscopist. Positioning of the patient is also equally important for better orientation during visualization of the interior, apart from passing the scope. Mild sedation definitely helps in apprehensive patients but sometimes it may make patient more uncooperative under sedation. Good anaesthetization (local) is very essential, as this procedure may irritate pharynx and cause severe bouts of cough in some patients.

Another common problem is inadequate preparation of the stomach makes the scopy difficult. Here a blood clot or pool of bile or ingested food particles makes visualization almost impossible. Sometimes pylorospasm may make negotiation difficult. Buscopan is useful in such cases. Of all such minor problem most important is that cleansing of the scope, after the procedure otherwise there can be bacterial, viral or fungal infection may occur. This is of utmost importance in presence of deadly infection of HIV and HbsAg.

In the present study maximum number of cases subjected to endoscopy belonged to age group of 61 years and above (25.1%) and 51-60 years (21.5%). In a similar study by Gautam etal. done at Referral Railway Hospital, Kolkata, the mean age group of study was 51-60yrs. [70] In Kuwait series maximum number of patients were in 21-30yrs of age group (67/211) adult age group i.e. 21.6% was affected more than any other age groups.[68]

In the present study the maximum patients subjected to endoscopy were males (61.6%).in the study by naniwadekar and Kuwait series maximum number of patients subjected to endoscopy were males( 72.5 % and 62% respectively). The results were similar to our study.[67,68]

In the present study most of the patients presented with pain abdomen followed by vomiting. In the study by Gautam ray et al. 9398 cases were studied and most of the patients presented with the similar complains of pain abdomen.[70] Similarly in a study of Kuwait series most of the patients presented with pain abdomen.

In the present study, most of the patients on upper GI endoscopy were found to have chronic gastritis and acute diffuse gastritis.

## In the present study, the incidence of individual etiology was as follows:

**OESOPHAGITIS.**

In present study the incidence of oesophagitis was 11.8 %. In the studies by Gautam et al. and Nanivadekar et al. the incidence of oesophagitis was found to be 7.2% & 9% respectively.[68,70] Also the results are comparable to study done by Shennak et al ,[69] where incidence of oesophagitis was 15%. Most of the patients affected with oesophagitis belonged to age group of 21-30yrs in our study.

## GASTRITIS

In our series incidence of gastritis was 39.33% , as compared to studies by Al Nakib( 31% ) and Sulieman M et al (42%) .[68,71] The incidence of gastritis in our study was maximum in the age group of 60 years and above(13.33% ) which was concordant with study by Gautam et al.(25%) .[70]

The highest incidence in age group of 60 yrs and above can be explained on the basis of genetic, environmental factors and also high consumption of spicy diet. The habit of alcohol consumption and excessive smoking in our rural area is also a main reason for gastritis.

Alcohol and smoking lowers pyloric pressure, which leads to bile reflux that damages the gastric mucosal barrier and hence produces gastritis.

## DUODENITIS

Incidence of duodenitis was 7.83 % in our series as compared to 10% of Kuwait series and 1% in a series studied by Naniwadekar.[67,68] Al Nakib also quotes that the duodenitis is more common in the western countries(20.8% in Nigeria). In a similar study by Gregg JA et al the incidence was 20.4%. [72] In our study majority of the patients affected with duodenitis were in the age group of 21-30 yrs (25%) and 60 -above yrs (23.4%) .

## PEPTIC ULCERS

### A. GASTRIC ULCER

Incidence of Gastric ulcer in our study is very low (0.8%) as compared to most parts of the world and also in western countries. Incidence of gastric ulcer was high in a study by Al Nakib et al. and Gautam et al. which was 5.9% and 4.9%

respectively .[68,70] In 80% of the cases with gastric ulcer is associated with chronic antral gastritis.

**B. DUODENAL ULCER**

Incidence of chronic duodenal ulcer in our series was 2.5% as compared to 29.4% in study by Al Nakib et al and 15% in a study by Sulieman et al. [68,70]Out of all the lesions studied, only in chronic duodenal ulcer majority patients had relief of pain with food.

In this rural population incidence of gastric ulcer and duodenal ulcer (2.5%) was very low, and seen in elderly age group people .This may be attributed to the widespread proton pump inhibitors in the elder age group people as PPI are co prescribed with NSAID'S and antiplatelet agents used for cardiovascular ,cereebrovascular and rheumatolocal diseases. Also the PPI are available easily over the counter without cost

**OESOPHAGEAL VARICES**

Incidence of the oesophageal varices in our study was 1.5%, of them most of the patients affected were in the age group 41-50 years (20.8%).similar incidence was noted in a study by shennak et al.[69] The incidence was more in males compared to females.

**EROSIVE GASTRO DUODENITIS**

Incidence of gastro duodenitis in our study was 7.16%. The incidence was 22.35% In a study by Gautam et al.[70] Most of the patients affected with gastro duo denitis were in the age group of 41-50 yrs and was more common in males.

## GASTRIC CARCINOMA

The incidence of gastric carcinoma in our study was found to be 4.6%. The M: F ratio was 2.5:1. The incidence of Gastric Carcinoma was 6.5% in a study by Gautam et al.[70] the ratio of affection of male: female was 3:1 in a study at Tata memorial hospital, Bombay. Database of KIDWAI MEMORIAL INSTITUTE OF ONCOLOGY (KMIO) 2004 -05, Bangalore, Karnataka the incidence of gastric cancer was 9%. The maximum patients affected were in the age group of 51-70 yrs. Mean age was 58.5yrs comparable to 56yrs quoted by Tata memorial hospital and with 53yrs quoted by U.V. Nakib. This is much lower compared to the mean age of 62yrs in U. S. A.

It was observed carcinoma stomach was more common in **antrum (15 cases),body( 8 cases )and fundus (5 cases.)**

It must be noted that it is not possible to detect an early gastric carcinoma just by endoscopic visualization but histopathological studies are a must. Even in Japan, where the incidence of Gastric Ca is 20 times greater, only one early gastric Ca was seen out of 2000 to 3000 scopies performed.

## CARCINOMA OF OESOPHAGUS

Incidence of carcinoma oesophagus was 4.5 % in our series. Incidence pattern is comparable to KMIO, Bangalore with incidence of 6.6% and Gautam et al with incidence of 4.6%.[70] Out of the total 27 cases, 15 were Males and 12 were Females. In males the maximum patients affected were in the age group of 60yrs and above.

**NORMAL STUDY**

Total number of cases were 88 and incidence was 14.5%. Incidence was more in females compared to males. Normal studywere more compared to all previous studies.[67,68,70]

**GASTRODUODENITIS**

In our study total no. of cases affected were 3.33%. Most of the patients affected were males and were in the age group of 21- 30yrs (31.1%).

**POLYPS:** In our study-

a. Duodenal Polyp: Incidence was 0.5 %., more common in males and patients above 60yrs.
b. Oesophageal Polyp: Incidence was 0.16%. More common in males and above 60yrs.

**STRICTURE OESOPHAGUS**:

Most of the cases affected were following acid consumption. The incidence was 0.33%. The stricture was more common in males in the age group (31-40 yrs).

**FOREIGN BODY IN STOMACH**: Incidence was 0.66.% and all affected were males

**CANDIDIASIS**.

Oesophageal Candidiasis: In the present study, Incidence was 4.16 %, i.e. 25/600. It was seen more common among male of the age group 50-60 yrs. Of the affected individuals only 6 of them were sero-positive for HIV. Candidiasis also affected other individuals (who were not sero-positive for HIV), this may be

attributed to the advanced age, diabetes mellitus, alcoholism, inhaled gluco-corticoid use in asthmatics and acid suppressive therapy for patients with chronic gastritis. It was interesting that not all patients were symptomatic and our study supports a prevalence of oesophageal candidiasis in 20% of normal healthy individuals.[51,52] All patients were followed and given course of treatment with oral flucanazole 200 mg on first day followed by 100mg once daily for atleast 2 weeks.

**GASTRIC OUTLET OBSTRUCTION**

Incidence 0.33 % ie 2/600.incidence was more common in males compared to females. It was more seen in 51-60 yrs age group.

**DUODENAL DIVERTICULUM**

The incidence in our study was 0.5% and was low in comparison to other studies.[67,68,70] In our study it was seen commonly in younger age group.

**UN CO-OPERATIVE PATIENTS**

We had a neglible incidence of 0.33% who were not co operative because of apprehension towards the procedure.

**INADEQUATE PREPARATION**:

Inadequate preparation was seen in 3 patients, patient had not come with empty stomach.

Role of the endoscopy can be discussed under various headings

**i. Role of endoscopy in the diagnosis of upper GI tract disorders. This can be divided into 2 subdivisions:**

- Disorders where endoscopy is the sole method of investigation for diagnosis.
- Endoscopy to confirm or as supplementary to other investigations.

The conditions where the lesions are confined to the mucosa are difficult to diagnosis by radiological and other investigations except on endoscopy e.g. acute erosive gastritis, Reflux oesophagitis. Here endoscopy forms valuable investigation for such conditions. Even early gastric carcinomas (also called mucosal carcinomas) may be missed easily on radiological study while these lesions not only visualised endoscopically but also biopsied. Thus endoscopy helps in diagnosis of the condition as well as its management (e.g. carcinoma stomach – surgery can be contemplated from the report of multiple endoscopic biopsies).

In our study 350 cases fall in this category, they were:

**Table 10: Distribution of patients according to lesions confined to mucosa**

| **Diagnosis** | **Number of patients** |
|---|---|
| Reflux oesophagitis | 41 |
| Reflux oesophagitis with gastritis | 30 |
| Gastroduodenitis | 10 |
| Erosive gastritis | 43 |
| Chronic gastritis | 75 |

| | |
|---|---|
| Acute diffuse gastritis | 74 |
| Reflux bile gastritis | 37 |
| Duodenitis | 36 |
| Atropic gastritis | 04 |
| **Total** | **350** |

These are the cases where endoscopy was sole diagnostic method. Endoscopy not only helps in confirming the diagnosis but also provides more information regarding the conditions specially its pathology, extent and complication like obstruction, bleeding or perforation.

**II. Role of upper GI endoscopy in followup of patients**

Cases which are treated either conservatively or operative method can be followed up in a much better way if endoscopy is available easily.

As in our series five patients of gastric ulcers were found. These patients were put on Tab. rabeprazole 20mg OD for 6 weeks. On repeat endoscopy the ulcer was seen almost healed. In this way response to conservative treatment can be assessed in this way.

Follow up of patients on varicose bleeding were done in our series, out of 9 cases of oesophageal varices. Repeat endoscopy of 4 patients were done who have undergone Oesophageal banding in higher institutes and improvement was seen in these cases.

**III. Role of endoscopy in emergency cases**

Role of endoscopy in emergency is very valuable. In our series two patients had foreign body in lower oesophagus. These patients were subjected to endoscopy and foreign body was removed using biopsy snare in one case. In another case patient was taken to OT and foreign body foreign body was removed under GA using rigid oesophagoscope.

**IV. Role of endoscopy as a therapeutic procedure**

Owing to the development and availability of accessories (biopsy forceps, snares etc) it has become possible to extend the application of this instrument in the therapeutic field.

**1. Removal of foreign body**

In our series two cases of foreign body in stomach and one in esophagus.in two cases foreign body was removed using biopsy snaring and pulling it with fiberscope one patient had goat eye as a foreign body which was removed endoscopically. The figures of which is depicted in the above section.

**2. Upper GI bleeding**

Endoscope is an important early manoeuvre in the management of upper gastrointestinal bleeding. An experienced endoscopist can identify the bleeding source about 90% of the time. A clear demonstration of the type and location of the responsible lesion helps to guide subsequent treatment. This is especially important if urgent surgery becomes necessary. The surgeon must know where to focus the operation. Thus upper GI not only helps in identifying the haemorrhage source, but

also helps to access the danger of rebleeding and death. Endoscopic treatment can then be selected only for patients with high risk features. In these conditions therapeutic endoscopy is of great benefit.

# CONCLUSION

Diagnostic sensitivity and specificity of upper GI endoscopy is more than 90% which is much better than double contrast barium meal. It also spared the patient of unnecessary radiation. Of the 600 patients studied 60.4% of patients were males and 39.6% were female patients. Male preponderance is probably due to greater mental stresses to which they are exposed compared to females & probably due to greater tendency towards habit like tobacco chewing, smoking, alcohol and drug abuse.

Also females during there reproductive age have a low incidence of peptic ulcer disease probably due to protective effect provided by the oestrogens.

Following conclusion were made regarding the age group of patients presenting with G1 symptoms. Since incidence of malignancy is very high above 40 years. It is best to subject patients above 40 years to endoscopy right away no matter how small the duration of symptoms. These patients should not be given antacid as first line of treatment because the policy of “treat first” changes the appearances of a lesion hence there is a danger of missing a malignancy on endoscopy when done at a later date.

The incidence of patients with non-positive Endoscopy findings was 18% i.e. 88 /600. The increase in normal studies of endoscopy on recent years is mainly because of increased medical care, easy availability of the procedure and increase awareness of health among the population.

All these patients had dyspeptic symptoms of variable duration. Syzanne P. Lagarde and Howard define an entity called as ‘NON ULCER DYSPEPSIA’ which refers to those patients with intermittent upper abdominal discomfort in whom a reasonable clinical evaluation has failed to reveal a definite cause of these symptoms.

Hence many of the patients with normal study findings would probably belong to this group.

Total number of patients having pathological lesions was 500. Most common sites of involvement was stomach and oesophagus with gastritis and oesophagitis. The incidence of pathological findings was much higher in the age group of 51-70 years.

The highest incidence of malignancy was found in the age group 51-65 years. Carcinoma oesophagus and carcinoma stomach cases incidence pattern was equal in this area of kolar. This may be attributed to the use of spicy diet, heavy alchohol consumption and smoking among the labourer groups.

## Clinical endoscopic correlation:

In 350 cases of upper GI diseases correct clinical diagnosis was in 204cases i.e.64.3%, while incorrect clinical diagnosis was made in 108 patients i.e. in 35.7% of cases correct diagnosis was made with the help of endoscopy only and these patients were benefited in three aspects.

1. Relief of symptoms and case
2. Financially by avoiding repeated barium studies and costly drugs.
3. Hazard of radiation (x-ray) can be avoided.
4. In patients with gastric and duodenal ulcers which formed 20 cases in our series, correct clinical diagnosis was made in 10 cases i.e. 50%. So 50 % of cases if endoscopy was not done then diagnosis would have missed and all these patients would suffer with symptoms of peptic ulcer and the correct management could not have been instituted.In malignancy cases, among carcinoma oesophagus and

carcinoma stomach, 54 cases out of 40were correctly diagnosed clinically. So 74.6% of cases were correctly diagnosed where as 25.4% of cases could have not been diagnosed without endoscopy. In any case for all cases confirmation of diagnoses biopsy through endoscopy is must.

In this series of 600 cases, I feel that the endoscopic surgeon by the use of the initial endoscopic examination, gains a precise anatomical and pathological definition of the problem with an opportunity for biopsy cytology and also therapeutic procedures.

Flexible endoscope has started as a revolution of diagnostic gastroenterological diseases and it will continue to evolve as we assess their usefulness and indications. Upper GI scopy has proved its diagnostic usefulness beyond technique, it includes importance of differential diagnosis and the indications or need for biopsy.

As the human gut is long and tortuous, the diagnosis and localization of the disease entity has been proven by use of flexible endoscope which gives direct inspection in colour, instinctively preferred investigation of choice and probably more accurate. It has over ruled the use of barium studies which used to give the data in black and white picture.

GI endoscopy is a skill which requires motivation, determination and dexterity to arrive at a conclusive clinical diagnosis of a gastroenterological disease, which has been found to be most useful in our study and performed as a day care procedure of diagnostic importance.

Hence this study highlights importance of diagnostic and recording of the various gastroenterological disease we come across in rural population.

# SUMMARY

The fast development and advantages of the fibreoptic endoscope in short duration of three decades stimulated us to study the usefulness in the fields of diagnosis, therapeutics, prognosis, follow up and for the future.

With these aims the study of 600 cases was conducted in Sri Devaraj Urs Academy Of Higher Education And Research Centre & R.L .Jalappa Hospital And Research Centre, Tamaka ,Kolar, with OLYMPUS CV -70 endoscope during the period 2011-2013.

The patients for the study were all the patients from OPD and IPD (referred and emergency).

There were 60.4% males and 39.6% females of age varying from 2years to 80 years .The examination in all the patients was carried out under local and or sedation.

The commonest symptom was pain in abdomen i.e. 43% patients and commonest sign was epigastric tenderness i.e. 49.8% patients.

Chronic gastritis, acute diffuse gastritis and refux esophagitis formed most common cases.

Stomach was the most common site of disease followed by oesophagus.

The incidence of diseases was highest i.e. 25.4% in 61years and above years age group.

The incidence of malignancy was highest in 51-60years and 60 years and above age group.

There was high incidence of mucosal lesions oesophagitis, gastritis and duodenitis in our studies pointing on spicy food habits and tobacco consumption in this region.

Carcinoma oesophagus and carcinoma stomach had more or less equal incidence of 4.6 % band 4.5 % respectively.

Upper GI Endoscopy was the sole diagnostic tool in about 1/3 of the patients diagnosed. This helped in early initiation of treatment and avoidance of radiation of x-rays.

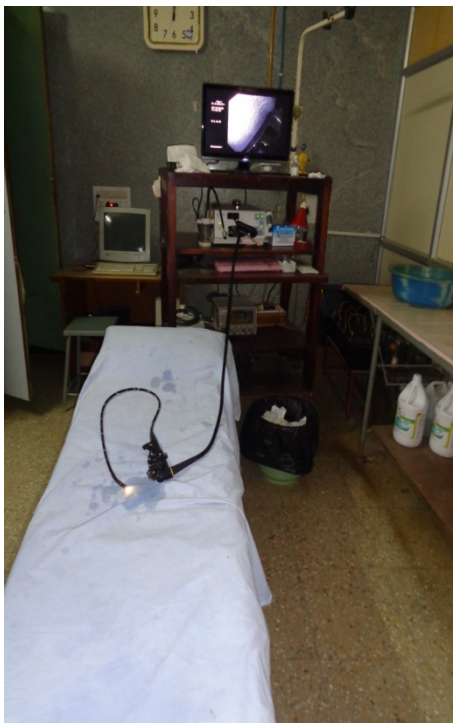
In all these cases Upper GI Endoscopy not only helped in diagnosis but also provided more information regarding the conditions like pathology (biopsy), extent and complications like obstruction, bleeding or perforation.

Foreign body were removed in 3 cases.

The study highlighted the high diagnostic and therapeutic value of upper GI Endoscopy. The study proved its safety, reliability and the lowest morbidity and mortality associated with it.

Hence this study highlights importance of diagnostic and recording of the various gastroenterological disease we come across in rural population.

**FIG 36 : ENDOSCOPY SUITE**



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## ANNEXURES

## PROFORMA

**NAME** :

**AGE** :

**SEX** :

**ADDRESS** :

**IP/OP NO** :

**CHIEF COMPLAINTS** :

**HISTORY OF PRESENT ILLNESS:**

Pain Abdomen:

H/O GERD: Heart burn, Regurgitation, Dysphagia for solids, Hoarseness of voice,Belching,Bloating,

Vomiting:

Fever:

Blood in vomitus:No ☐ Yes ☐

H/O decreased food intake and loss of weight: No ☐ Yes ☐

H/o bleeding per rectum:No ☐ yes ☐

H/O Aspiration /Wheezing:No ☐ Yes ☐

H/O Undergoing Surgical intervention for upper GI tract lesions. No ☐ Yes ☐

**PAST HISTORY**:

H/O Similar complaints in the past: No ☐ Yes ☐

H/O Endoscopic procedures.

**FAMILY HISTORY**: No ☐ Yes ☐

**PERSONAL HISTORY**:

H/o smoking: No ☐ Yes ☐ Diet history: Veg Non veg ☐

☐

H/o alcohol intake: No ☐ Yes ☐ Sleep: Normal ☐ Disturbed ☐

**GENERAL PHYSICAL EXAMINATION:**

Built :

Pallor/icterus/cyanosis/koilinochyia/lymphadenopathy/edema.

Vitals: P.R- B.P-

**SYSTEMIC EXAMINATION:**

CARDIOVASCULAR SYSTEM :

RESPIRATORY SYSTEM :

CNS :

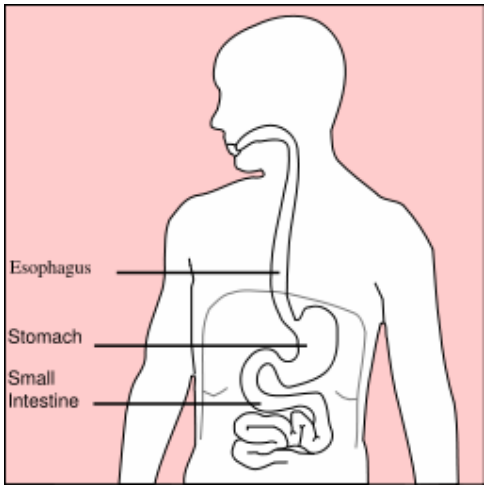
PER ABDOMEN :

Per Rectal examination :

**CLINICAL DIAGNOSIS:**

**INDICATION FOR UPPER GI ENDOSCOPY:**

**ENDOSCOPIC FINDINGS:**




**ENDOSCOPIC DIAGNOSIS:**

**HISTOPATHOLOGICAL REPORT OF ENDOSCOPIC BIOPSY:**

**INVESTIGATIONS:**

Hb :

HIV :

HbsAg:

Any other investigation done :

KEY TO MASTER CHART.

1.M-male

2.F- female.

3.Y-Yes

4.N-No

5.NEG-negative

6.Pos- positive.

7. Hb- haemoglobin.

8.HPE- histopathological examination.

9.G-gastritis.

# MASTER CHART

| SL NO | AG E | SEX | DATE | HOSPITAL NO | CLINICAL SYMPTOMS/INDICATIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | UPPER ABDOMINAL PAIN | HAMETEMESIS/MALENA | NAUSEA /VOMITING | DYSPHAGIA | LUMP IN THE ABDOMEN | ANOREXIA/ WEIGHT LOSS | REGURGITATION | FULLNESS AFTER MEAL | POST OP FOLLOW UP | HB | HIV/HbSAg | STOOL FOR OCCULT BLOOD | JAUNDICE | Biopsy &HPE | REFLUX ESOPHAGITIS | GASTRITIS | REFLUX BILE G | DUODENITIS | CARCINOMA ESOPHAGUS | EROSIVE GASTRITIS | CHRONIC GASTRITIS | CHRONIC GASTRIC ULCER | CHRONIC DUODENAL ULCER | CARCINOMA STOMACH | OESOPHAGEAL VARICES | REFUX ESOPHAGITIS WITH GASTRITIS | HIATUS HERNIA | DUODENAL POLYP | FOREIGN BODY STOMACH/OESOPHAGUS | PYLORIC STENOSIS | OESOPHAGEAL CANDIDIASIS | STRICTURE OESOPHAGUS | NORMAL STUDY |
| 3 | 53 | M | 10/10/201 | 766851 | N | Y | N | N | N | N | N | N | N | 8 | NEG | N | N | N | | Y | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N |
| 4 | 37 | M | 10/1/2012 | 770316 | N | N | N | Y | N | N | N | N | N | 8 | NEG | N | N | N | Y | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 5 | 25 | M | 17/01/12 | 767714 | | N | N | Y | N | N | N | N | N | 10 | NEG | N | N | N | N | Y | N | N | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | Y |
| 6 | 50 | M | 17/01/12 | 770111 | Y | N | N | Y | N | N | N | N | N | 8 | NEG | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 7 | 25 | M | 17/01/12 | 771645 | Y | N | N | N | N | N | N | N | N | 9 | NEG | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 8 | 23 | M | 24/01/12 | 771515 | Y | N | N | N | N | N | N | N | N | 9 | NEG | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 9 | 60 | M | 24/01/12 | 771199 | N | N | N | Y | N | Y | N | N | N | 7 | NEG | Y B | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 10 | 42 | M | 24/01/12 | 772541 | Y | N | N | Y | N | Y | N | N | N | 8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N |
| 11 | 50 | F | 24/01/12 | 771844 | Y | N | N | N | N | | N | N | N | 7 | NEG | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 12 | 68 | M | 31/01/12 | 723838 | Y | N | N | Y | N | Y | N | N | N | 8 | NEG | N | Y | N | N | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N |
| 13 | 31 | F | 31/01/12 | 733169 | Y | N | N | N | N | N | N | N | N | 9 | NEG | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 14 | 73 | M | 07/02/12 | 766263 | Y | N | N | N | N | N | N | N | N | 10 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 15 | 60 | M | 07/02.12 | 777654 | N | N | N | Y | N | N | N | N | N | 9 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N |
| 16 | 35 | F | 07/02/12 | 778380 | Y | N | Y | N | N | Y | N | N | N | 9 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N |
| 17 | 56 | F | 07/02/12 | 745135 | Y | N | N | N | N | N | N | N | N | 10 | NEG | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | | Y | N | | |
| 18 | 73 | M | 31/01/12 | 781864 | Y | N | N | N | N | N | Y | N | N | 11 | NEG | N | N | | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 19 | 65 | M | 31/01/12 | 780905 | | N | N | Y | N | Y | N | N | N | 11 | NEG | N | N | N | N | N | | Y | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 20 | 60 | M | 14/02/12 | 780876 | Y | | N | N | N | N | N | N | N | 10 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 21 | 25 | M | 14/0212 | 781002 | Y | N | N | N | N | N | N | N | N | 10 | NEG | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 22 | 57 | M | 14/02/12 | 780764 | Y | | Y | N | N | N | N | N | N | 8 | NEG | N | N | N | N | N | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | Y | N |
| 23 | 70 | F | 21/02/12 | 782977 | N | N | Y | Y | | Y | N | N | N | 7 | NEG | N | N | Y | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 24 | 19 | M | 21/02/12 | 783786 | Y | N | N | N | N | N | N | N | N | 10 | NEG | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 25 | 70 | M | 28/02/12 | 774660 | Y | N | Y | Y | Y | Y | N | N | N | 8 | NEG | N | N | Y | N | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N |
| 26 | 62 | F | 28/02/12 | 783933 | N | N | N | Y | N | N | N | N | N | 8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 27 | 29 | M | 06/03/12 | 736570 | N | N | N | Y | N | N | N | N | N | 9 | NEG | N | N | N | N | N | | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 28 | 35 | F | 06/03/12 | 782449 | N | N | N | | N | N | N | N | N | 9 | NEG | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 29 | 60 | M | 13/03/12 | 757785 | Y | N | N | N | N | N | N | N | Y | 7 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 30 | 60 | M | 13/03/12 | 746118 | Y | N | N | N | N | N | N | N | Y | 7 | NEG | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 31 | 55 | M | 20/03/12 | 786228 | Y | Y | N | N | N | N | Y | N | N | 8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N |
| 32 | 65 | M | 20/03/12 | 634201 | Y | N | Y | N | N | N | N | N | N | 8 | NEG | N | N | N | N | N | | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 33 | 65 | F | 27/03/12 | 633925 | Y | N | N | N | N | N | N | N | N | 8 | NEG | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 44 | 55 | M | 17/4/12 | 796218 | Y | N | Y | N | N | N | N | N | N | 8 | NEG | N | N | N | N | N | N | N | N | N | | Y | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 45 | 53 | M | 17/0412 | 789262 | N | N | N | N | Y | N | N | Y | N | 8 | NEG | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 46 | 62 | M | 10/04/12 | 798637 | Y | N | N | N | N | N | N | Y | Y | 10 | NEG | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 47 | 27 | M | 10/04/12 | 788116 | Y | N | Y | N | N | N | N | Y | Y | 8 | NEG | N | N | N | N | Y | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 48 | 55 | M | 24/04/12 | 801137 | Y | N | N | | N | N | Y | Y | N | 9 | NEG | N | N | Y | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | Y | | N | N |
| 49 | 70 | F | 24/4/12 | 800984 | N | N | N | Y | N | N | N | N | N | 9 | NEG | N | N | YB 539- | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 50 | 60 | M | 08/05/12 | 799496 | N | N | Y | Y | N | N | N | N | N | 7 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 51 | 57 | M | 08/05/12 | 797317 | Y | N | N | Y | N | N | N | N | N | 8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N |
| 52 | 39 | F | 15/05/12 | 798879 | Y | N | N | | N | N | N | Y | N | 7 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 53 | 65 | F | 15/05/12 | 761357 | Y | N | N | | N | N | N | Y | N | 8 | NEG | N | N | N | N | N | Y | N | N | N | N | N | N | N | | N | N | N | N | N | N | N | N | N | N | N |
| 54 | 60 | M | 05/06/12 | 799496 | Y | N | N | Y | N | N | N | Y | N | 9 | NEG | N | N | N | N | N | | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 55 | 60 | F | 05/06/12 | 809094 | N | N | N | Y | N | N | N | | N | 10 | NEG | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 56 | 57 | M | 15/2/12 | 872581 | Y | N | N | Y | N | N | N | Y | | 9 | NEG | N | N | Y B044- | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N |
| 57 | 50 | M | 17/2/12 | 873077 | Y | N | N | N | N | Y | Y | N | Y | 9 | NEG | N | N | Y B050- | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 58 | 50 | F | 17/02/12 | 873863 | | N | N | Y | N | N | Y | N | N | 10 | NEG | N | N | Y B049- | N | Y | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 59 | 64 | M | 19/02/12 | 873862 | | N | N | Y | N | N | Y | N | N | 11 | NEG | N | N | B 286-1 | N | Y | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 60 | 80 | M | 19/02/12 | 866954 | Y | N | N | Y | N | N | | Y | N | 11 | NEG | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |

# MASTER CHART

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 61 | 48 | F | 19/02/12 | 875206 | Y | N | N | | N | N | Y | Y | N | 10 | NEG | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 62 | 45 | M | 19/02/12 | 875232 | Y | N | N | Y | N | N | Y | N | N | 10 | NEG | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| | | | | | | | | | | | | | | 8 | | N | N | B 140- | N | | | | | | | | | | | | | | | | | |
| 63 | 72 | M | 19/02/12 | 876170 | N | N | N | N | N | N | N | N | N | | POS | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 64 | 64 | F | 21/02/12 | 869714 | N | N | N | N | N | N | N | N | N | | POS | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N |
| 65 | 80 | M | 21/02/12 | 879850 | N | N | N | N | N | N | N | N | N | 7 | NEG | N | N | B207-13 | N | N | N | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N |
| 66 | 70 | M | 21/02/12 | 877847 | N | N | N | N | N | N | N | N | N | | NEG | N | N | Y B196 | N | N | N | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N |
| 67 | 55 | M | 1/3/12 | 879576 | N | N | N | N | N | N | N | N | N | | NEG | N | N | Y B412 | N | N | N | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N |
| 68 | 50 | M | 4/3/12 | 880187 | N | N | N | Y | N | N | N | N | N | 10 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 69 | 60 | M | 4/3/12 | 883466 | N | N | N | N | N | N | N | N | N | | NEG | N | N | Y B412 | N | N | N | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N |
| 70 | 75 | M | 4/3/12 | 885045 | N | N | N | N | N | N | N | N | N | | NEG | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 71 | 35 | M | 4/3/12 | 886062 | N | N | N | Y | N | N | N | N | N | 8 | NEG | N | N | B-639-1 | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 72 | 25 | F | 4/3/12 | 839414 | N | N | N | Y | N | N | N | N | N | | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 73 | 53 | M | 5.3.12 | 888132 | N | N | N | | N | N | N | N | N | | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 74 | 55 | M | 5.3.12 | 886454 | N | N | N | Y | N | N | N | N | N | 8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 75 | 45 | M | 5.3.12 | 892964 | N | N | N | Y | N | N | N | N | N | | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 76 | 64 | F | 8-3-12 | 894505 | N | N | N | N | N | N | YES | N | N | | NEG | N | N | YB 539- | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N |
| 77 | 65 | F | 8 | 894627 | N | N | N | N | N | N | YES | N | N | 9 | NEG | N | N | Y 538- | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 78 | 44 | M | 8 | 89334 | N | N | N | YES | N | N | N | N | N | | NEG | N | N | YB331 | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N |
| 79 | 70 | M | 8 | 896683 | N | N | N | YES | N | N | N | N | N | | NEG | N | N | Y B-639 | N | N | N | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N |
| 80 | 60 | M | 3/03/12 | 903306 | N | N | N | Y | N | N | N | N | N | 9 | NEG | N | N | Ye B765 | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N |
| 81 | 70 | F | 3/03/12 | 905487 | N | N | N | YES | N | N | N | N | N | | NEG | N | N | YB412 | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N |
| 82 | 78 | M | 7/03/13 | 905709 | N | N | N | YES | N | N | YES | N | N | | NEG | N | N | YB425 | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 83 | 70 | M | 07/03/12 | 905680 | N | N | N | N | N | N | YES | N | N | 7 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | Y | N | N | YES | N | N | N |
| 84 | 30 | F | 9/03/12 | 905811 | N | N | N | N | N | N | YES | N | N | 7 | NEG | N | N | YB317 | N | N | N | N | N | N | N | N | N | N | N | N | Y | N | N | YES | N | N | N |
| 85 | 70 | F | 09/03.12 | 906300 | N | N | N | N | N | yes | YES | N | N | 8 | NEG | N | N | B389 | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 86 | 79 | M | 12/3/12 | 904606 | N | N | N | N | | y | YES | N | N | 8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 87 | 45 | M | 12/03/12 | 909492 | N | N | N | N | N | N | YES | N | N | 8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 88 | 51 | M | 15/03/12 | 911077 | N | N | Y | N | N | N | YES | N | N | 8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 89 | 48 | M | 15/03/12 | 911093 | N | N | Y | N | N | N | YES | N | N | 8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 90 | 60 | F | 22/3/12 | 902313 | N | N | Y | N | N | N | YES | N | N | 10 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 91 | 55 | F | 22/3/12 | 912748 | N | N | Y | N | N | N | YES | N | N | 8 | NEG | N | N | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N |
| 92 | 65 | F | 28/03/12 | 766299 | N | N | N | YES | N | N | Y | N | N | 9 | NEG | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 93 | 53 | M | 01/4/12 | 912708 | N | N | N | YES | N | N | Y | N | N | 9 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N |
| 94 | 63 | M | 1/4/12 | 914549 | N | N | N | Y | N | N | YES | N | N | 7 | NEG | N | N | N | N | | YES | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N |
| 95 | 49M | M | 5/4/12 | 809299 | YES | N | N | | N | N | N | N | N | 8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 96 | 38 | F | 5/4/12 | 830629 | N | N | N | | N | N | N | N | N | 7 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 97 | 65 | M | 5/4/12 | 829852 | N | N | N | YES | N | N | N | N | N | 8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES | N | N | N | N | N |
| 98 | 40 | M | 7/4/12 | 828776 | N | N | N | YES | N | N | N | N | N | 9 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 99 | 43 | F | 7/4/12 | 814921 | N | N | N | | N | N | N | N | N | 10 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 100 | 70 | F | 10/4/12 | 829147 | N | N | N | YES | N | N | N | N | N | 9 | NEG | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 101 | 46 | M | 10/4/12 | 829542 | N | N | N | YES | N | N | N | N | N | 9 | NEG | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | YES | N | N | N | N |
| 102 | 26 | M | 10/4/12 | 829348 | YES | N | N | | N | N | N | N | N | 10 | NEG | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 103 | 70 | M | 10/4/12 | 829557 | YES | N | N | | N | N | N | N | N | 11 | NEG | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 104 | 55 | M | 20/4/12 | 820486 | Y | N | N | N | N | N | N | N | N | 11 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES | N | N | N |
| 105 | 35 | F | 20/4/12 | 816054 | Y | N | | N | N | N | N | N | N | 10 | NEG | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 106 | 35 | M | 24/4/12 | 831960 | Y | N | Y | N | N | N | N | N | N | 10 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 107 | 44 | M | 24/4/12 | 831183 | Y | N | N | N | N | N | N | N | N | 8 | NEG | N | N | N | N | N | N | N | N | | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 108 | 80 | F | 24/4/12 | 828992 | Y | N | N | N | N | N | N | N | N | | NEG | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 109 | 25 | M | 27/4/12 | 830693 | Y | N | N | N | N | N | N | N | N | | NEG | N | N | N | N | N | N | | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 110 | 49M | M | 27/4/12 | 830935 | N | N | N | N | N | N | N | N | N | 7 | NEG | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 111 | 31 | F | 27/12 | 830844 | N | N | N | N | N | N | N | N | N | | NEG | N | N | N | N | YES | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 112 | 69 | F | 29/4/12 | 832911 | N | N | N | N | N | N | N | N | N | | NEG | N | N | N | N | N | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 113 | 40 | F | 29/4/12 | 834464 | Y | N | N | N | N | N | N | N | N | 10 | NEG | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 114 | 51 | M | 01/5/12 | 834465 | Y | N | N | N | N | N | N | N | N | | NEG | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 115 | 30 | M | 1/5/12 | 834548 | Y | N | N | N | N | N | N | N | N | | NEG | N | N | N | N | N | | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N |

# MASTER CHART

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 116 | 29 | M | 12/05/12 | 812986 | Y | N | N | N | N | N | N | Y | N | 8 | NEG | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 117 | 29 | F | 19/05/12 | 810087 | Y | N | N | N | N | N | N | N | Y | | NEG | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 118 | 25 | M | 19/05/12 | 811647 | Y | N | N | Y | N | N | N | N | N | | NEG | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 119 | 51 | M | 03/06/12 | 781198 | Y | N | Y | N | N | N | N | N | N | 8 | NEG | N | N | N | Y | N | N | N | | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 120 | 18 | F | 07/06/12 | 776126 | Y | N | Y | N | N | N | N | Y | Y | | NEG | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 121 | 40 | F | 07/06/12 | 776222 | Y | N | Y | N | N | N | N | Y | N | | NEG | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 122 | 60 | M | 06/06/12 | 773266 | Y | N | Y | Y | N | N | N | Y | Y | 9 | NEG | N | N | N | N | N | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 123 | 73 | M | 10/6/12 | 766263 | Y | N | Y | Y | N | N | N | Y | Y | | NEG | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 124 | 28 | F | 12/6/12 | 775452 | Y | N | Y | Y | Y | N | N | Y | N | | NEG | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 125 | 50 | M | 15/6/12 | 764869 | Y | N | Y | Y | Y | N | N | N | Y | 9 | NEG | N | N | N | N | Y | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N |
| 126 | 50 | M | 15/6/12 | 772565 | | N | N | N | N | N | N | N | N | | NEG | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N |
| 127 | 45 | M | 18/6/12 | 733705 | Y | N | N | N | N | N | N | N | N | | NEG | N | N | N | Y | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 128 | 42 | M | 19/6/12 | 733169 | | N | | Y | | N | N | Y | N | 7 | NEG | N | Y | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N |
| 129 | 27 | F | 3/8/12 | 769159 | Y | N | N | Y | N | N | N | Y | N | 7 | NEG | N | N | N | N | Y | Y | | Y | | N | N | N | N | N | N | N | N | N | N | N | N |
| 130 | 60 | F | 3/8/12 | 691995 | Y | N | N | Y | N | N | N | Y | N | 8 | NEG | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 131 | 70 | F | 3/8/12 | 791572 | Y | N | N | Y | N | N | N | Y | N | 8 | NEG | N | N | N | N | N | | N | N | N | Y | | N | N | N | N | N | N | N | N | N | N |
| 132 | 72 | F | 3/8/12 | 790299 | Y | N | N | Y | N | N | N | Y | N | 8 | NEG | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 133 | 68 | M | 5/8/12 | 79023 | Y | N | N | Y | N | N | N | Y | N | 9 | NEG | N | N | N | N | N | Y | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N |
| 134 | 48 | M | 5/8/12 | 781642 | Y | N | N | Y | N | N | N | Y | N | 9 | NEG | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 135 | 50 | M | 5/8/12 | 792093 | Y | N | N | Y | N | N | N | Y | N | 9 | NEG | N | N | N | N | N | Y | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 136 | 52 | M | 5/8/12 | 791518 | Y | N | N | Y | N | N | N | Y | N | 9 | NEG | N | N | N | N | N | Y | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 137 | 49 | M | 5/8/12 | 790414 | Y | N | N | Y | N | N | N | Y | N | 9 | NEG | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 138 | 60 | F | 6/8/12 | 680004 | Y | N | N | Y | N | N | N | Y | N | 8 | NEG | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 139 | 59 | M | 6/8/12 | 791125 | Y | N | N | | Y | N | N | Y | N | 9 | NEG | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 140 | 50 | F | 6/8/12 | 790771 | Y | N | N | | Y | N | N | Y | N | 8 | NEG | N | N | Y | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 141 | 40 | M | 8/8/12 | 770111 | N | Y | N | N | N | N | N | Y | N | 10 | NEG | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 142 | 45 | F | 8/8/12 | 771242 | N | Y | N | Y | | Y | | Y | N | 9 | NEG | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 143 | 25 | F | 8/8/12 | 771374 | N | Y | N | Y | Y | Y | Y | | N | 8 | NEG | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 144 | 30 | F | 10/8/12 | 772292 | N | N | N | N | N | N | N | Y | N | 9 | NEG | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 145 | 26 | M | 10/8/12 | 768179 | N | N | N | Y | Y | N | N | N | N | 10 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 146 | 28 | M | 11/8/12 | 771476 | N | N | N | N | N | | Y | N | Y | 8 | NEG | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 147 | 29 | F | 11/8/12 | 771515 | N | N | Y | N | N | Y | N | N | N | 7 | NEG | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 148 | 54 | F | 11/8/12 | 769113 | N | N | | Y | | Y | N | N | N | 9 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 148 | 56 | F | 11/8/12 | 723889 | N | Y | N | N | N | Y | N | N | N | 8 | NEG | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 149 | 58 | M | 12/8/12 | 771645 | N | N | Y | N | N | Y | N | N | N | 10 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | Y |
| 150 | 50 | M | 12/8/12 | 755627 | N | N | | N | N | Y | N | N | N | 8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | Y |
| 151 | 35 | M | 12/8/12 | 771061 | N | Y | | | Y | N | N | Y | N | 11 | NEG | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 152 | 36 | M | 14/8/12 | 771199 | N | N | N | N | Y | N | N | N | N | 10 | NEG | N | Y | N | N | N | Y | N | Y | | N | | N | N | N | N | N | N | N | N | N | N |
| 153 | 45 | F | 14/8/12 | 774167 | | Y | N | N | Y | N | N | N | N | 9 | NEG | N | N | N | Y | N | N | N | N | N | N | Y | N | N | N | N | Y | N | N | N | N | N | N |
| 154 | 49 | M | 14/8/12 | 773991 | N | N | N | N | N | N | Y | N | N | 8 | NEG | N | Y | Y B212- | N | N | N | N | N | N | Y | N | N | Y | N | N | N | N | N | N | N | N | N |
| 155 | 42 | M | 14/8/12 | 691995 | N | N | N | N | N | Y | N | N | N | 7 | NEG | N | N | N | N | N | Y | | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 156 | 59 | F | 16/8/12 | 772541 | N | N | | Y | N | N | N | N | N | 9 | NEG | N | N | Y | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 156 | 50 | F | 16/8/12 | 773885 | N | N | Y | | N | N | N | Y | N | 9 | NEG | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N |
| 157 | 30 | F | 16/8/12 | 770873 | N | N | Y | | N | N | N | N | Y | 12 | NEG | N | Y | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N |
| 158 | 36 | M | 18/8/12 | 771844 | | Y | N | N | N | N | Y | N | N | 9 | NEG | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N |
| 159 | 38 | F | 18/8/12 | 773813 | N | N | N | N | N | Y | N | N | N | 10 | NEG | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N |
| 160 | 39 | F | 19/8/12 | 773911 | N | N | N | N | Y | N | N | N | N | 8 | NEG | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N |
| 161 | 26 | M | 19/8/12 | 770052 | N | N | N | N | | N | N | Y | N | 7 | NEG | N | Y | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N |
| 162 | 21 | M | 22/8/12 | 772872 | N | N | N | N | Y | N | N | | N | 12 | NEG | N | N | N | N | N | N | Y | N | N | N | | N | N | N | N | N | N | N | N | N | N |
| 163 | 26 | M | 22/8/12 | 728538 | N | N | Y | N | N | N | N | N | N | 13 | NEG | N | N | YB 215- | N | N | N | | Y | N | N | N | N | N | N | Y | N | N | N | N | N | N | |
| 164 | 29 | F | 22/8/12 | 765358 | N | Y | Y | N | N | N | N | N | N | 9 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | |
| 165 | 46 | F | 22/8/12 | 764200 | N | N | Y | N | N | N | Y | N | N | 8 | NEG | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | Y | N | N | N | |
| 166 | 19 | M | 22/8/12 | 613964 | N | N | Y | N | N | N | | N | N | 12 | NEG | N | N | Y | N | N | N | N | N | N | | Y | N | N | N | N | N | N | N | N | N | N | |
| 167 | 29 | F | 24/8/12 | 766436 | N | N | N | N | N | N | Y | N | N | 10 | NEG | N | Y | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | |
| 168 | 20 | M | 24/8/12 | 766616 | N | N | N | N | N | Y | | N | N | 9 | NEG | N | N | N | Y | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | |
| 169 | 48 | F | 25/8/12 | 762301 | N | N | N | | Y | N | N | N | N | 9 | NEG | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | |

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| 170 | 46 | M | 25/8/12 | 766147 | N | N | N | Y | N | N | N | N | N | 8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | |
| 171 | 49 | M | 25/8/12 | 765613 | N | Y | N | N | N | Y | | N | N | 7 | NEG | N | Y | N | N | N | N | N | N | N | N | | Y | N | N | N | N | N | N | N | N | N | N | |
| 172 | 75 | M | 25/8/12 | 766405 | N | N | N | N | N | N | Y | N | N | 6 | NEG | N | N | N | N | Y | | Y | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | |
| 173 | 73 | F | 26/8/12 | 762628 | N | N | N | N | Y | N | Y | N | N | 6 | NEG | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | Y | N | N | N | |
| 174 | 81 | F | 26/8/12 | 765814 | Y | N | N | N | | N | N | Y | | 8 | NEG | N | Y | N | N | N | N | N | | Y | N | N | N | N | N | N | N | N | Y | N | N | N | |
| 175 | 70 | M | 26/8/12 | 759966 | Y | N | N | N | Y | N | N | | | 9 | NEG | N | | | Y | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | Y | |
| 176 | 76 | M | 26/8/12 | 763905 | N | N | N | | N | Y | N | N | N | 7 | NEG | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | Y | N | N | N | N | N | Y | Y |
| 177 | 49 | F | 26/8/12 | 766613 | N | N | N | Y | N | N | N | N | N | 7 | NEG | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | Y | N | N | N | N | N | | N |
| 178 | 82 | M | 26/8/12 | 766469 | N | Y | N | Y | N | N | N | N | N | 8 | NEG | N | N | N | N | N | N | N | | N | N | N | Y | | N | N | N | N | N | N | N | Y | N |
| 179 | 84 | F | 28/8/12 | 765569 | N | Y | N | N | N | N | N | Y | N | 9 | NEG | N | N | N | N | N | Y | N | Y | N | N | N | N | Y | N | N | N | N | N | N | N | Y | N |
| 180 | 87 | F | 28/8/12 | 766924 | N | N | Y | N | N | N | Y | | N | 8 | NEG | N | N | N | N | N | Y | N | N | N | N | N | N | Y | N | N | | Y | N | N | N | | N |
| 181 | 83 | F | 28/8/12 | 766712 | Y | N | N | N | N | N | N | N | N | 6 | NEG | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | Y | N | N | N | N | Y | N |
| 182 | 29 | F | 28/8/12 | 766706 | Y | N | N | Y | N | N | N | N | N | 10 | NEG | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | Y | N | N | N | N | N | Y | N |
| 183 | 38 | M | 31/8/12 | 767214 | N | N | Y | | N | N | Y | N | N | 9 | NEG | N | N | N | N | N | N | Y | N | N | N | N | Y | | N | N | N | N | N | Y | N | N | Y |
| 184 | 39 | M | 31/8/12 | 766512 | N | N | N | Y | N | N | N | Y | N | 8 | NEG | N | N | N | N | N | N | Y | N | N | N | N | N | Y | N | N | N | N | N | Y | N | N | N |
| 185 | 46 | M | 31/8/12 | 602071 | Y | N | N | | N | Y | N | N | N | 7 | NEG | N | N | N | N | N | N | N | N | Y | N | N | N | | N | Y | N | N | N | | N | Y | N |
| 186 | 48 | F | 1/9/12 | 766196 | | N | Y | | N | | N | N | N | 10 | NEG | N | N | Y | N | N | N | N | N | | Y | N | N | | N | N | N | N | N | | N | N | N |
| 187 | 48 | M | 2/9/12 | 796769 | N | N | N | Y | N | N | Y | N | | 9 | NEG | N | N | N | N | | Y | | Y | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 188 | 49 | F | 2/9/12 | 797220 | N | N | N | Y | N | N | | N | Y | 8 | NEG | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 189 | 43 | M | 2/9/12 | 796460 | N | N | N | N | N | N | Y | | N | 7 | NEG | N | N | Y | N | | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 190 | 29 | M | 3/9/12 | 796310 | N | N | N | Y | N | N | N | Y | N | 12 | NEG | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 191 | 28 | M | 3/9/12 | 795383 | N | N | N | N | Y | N | N | Y | N | 8 | NEG | N | Y | N | N | Y | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N |
| 192 | 26 | F | 4/9/12 | 797324 | N | N | Y | N | | N | N | Y | N | 10 | NEG | N | N | N | N | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 193 | 26 | F | 4/9/12 | 797409 | N | Y | N | N | Y | N | N | | N | 9 | NEG | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 194 | 25 | F | 4/9/12 | 793613 | N | N | N | N | Y | N | N | Y | N | 8 | NEG | N | N | N | Y | | Y | | Y | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 195 | 29 | M | 6/9/12 | 797384 | N | N | N | Y | N | N | N | Y | N | 9 | NEG | N | N | N | Y | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N |
| 196 | 21 | F | 6/9/12 | 677805 | N | Y | N | N | Y | N | N | N | Y | 12 | NEG | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 197 | 28 | F | 6/o9/12 | 794116 | N | Y | N | Y | | N | N | Y | | 8 | NEG | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 198 | 35 | F | 6/9/12 | 793169 | N | Y | N | N | Y | N | N | | Y | 9 | NEG | N | N | N | N | N | | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 199 | 25 | M | 7/9/12 | 796013 | | Y | Y | N | N | N | N | N | N | 9 | NEG | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 200 | 73 | F | 7/9/12 | 795378 | N | N | N | Y | N | N | N | N | N | 9 | NEG | N | Y | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 201 | 24 | M | 8/9/12 | 794383 | N | N | N | N | Y | N | Y | N | N | 8 | NEG | N | Y | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 202 | 76 | F | 8/9/12 | 796148 | Y | N | N | N | | Y | N | N | N | 7 | NEG | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 203 | 80 | M | 8/9/12 | 795965 | N | N | Y | N | N | N | N | Y | N | 7 | NEG | N | Y | N | N | Y | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 204 | 81 | M | 8/9/12 | 790593 | N | Y | N | N | Y | N | N | Y | N | 9 | NEG | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 205 | 82 | M | 10/9/12 | 796244 | N | N | N | Y | N | N | N | Y | N | 7 | NEG | N | N | Y | N | Y | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 206 | 46 | F | 10/9/12 | 791893 | N | N | N | Y | N | | Y | N | N | 8 | NEG | N | Y | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 207 | 49 | F | 10/9/12 | 787555 | N | Y | N | N | N | Y | | N | N | 9 | NEG | N | N | Y | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 208 | 45 | F | 12/9/12 | 796769 | N | N | N | Y | N | N | Y | N | N | 10 | NEG | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 209 | 42 | M | 13/9/12 | 797220 | N | Y | N | N | N | N | N | Y | N | 9 | NEG | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 210 | 56 | m | 13/9/12 | 789564 | Y | N | N | N | Y | N | N | N | Y | 8 | NEG | N | N | N | N | Y | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 211 | 55 | M | 13/9/12 | 776453 | Y | N | Y | N | | N | N | N | Y | 7 | NEG | N | N | Y | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 212 | 26 | M | 14/9/12 | 795383 | N | Y | N | N | N | Y | N | | N | 10 | NEG | N | N | Y | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 213 | 40 | M | 14/9/12 | 797324 | N | N | Y | N | N | N | N | Y | N | 8 | NEG | N | Y | N | N | N | N | N | N | N | Y | | N | N | N | N | N | N | N | N | N | N |
| 214 | 64 | F | 14/9/12 | 797409 | Y | N | N | Y | N | N | N | N | Y | 9 | NEG | N | Y | N | N | N | N | Y | N | N | N | N | Y | N | N | N | N | N | N | N | N | N |
| 215 | 39 | M | 14/9/12 | 796313 | N | Y | N | N | N | N | Y | N | N | 10 | NEG | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 216 | 45 | M | 14/9/12 | 797384 | N | N | N | Y | N | N | N | N | N | 12 | NEG | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | Y |
| 217 | 65 | M | 16/9/12 | 677805 | N | N | N | Y | N | N | N | Y | N | 11 | NEG | N | Y | N | N | Y | | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 218 | 26 | M | 16/9/12 | 815940 | N | Y | N | N | N | N | N | N | Y | 12 | NEG | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 219 | 49 | F | 16/9/12 | 819546 | N | N | N | N | N | N | Y | N | N | 8 | NEG | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 220 | 52 | F | 17/9/12 | 819354 | N | N | N | Y | N | N | N | N | N | 9 | NEG | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 221 | 66 | M | 17/9/12 | 815325 | N | N | N | N | N | N | Y | N | N | 8 | NEG | N | N | N | N | | Y | | | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 222 | 29 | F | 18/9/12 | 817107 | N | N | Y | N | N | N | N | N | N | 12 | NEG | N | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N |
| 223 | 40 | F | 18/9/12 | 819893 | N | N | N | N | Y | | N | N | N | 8 | NEG | N | | Y | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 224 | 54 | F | 19/9/12 | 818022 | | Y | N | N | | N | Y | N | N | 8 | NEG | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 225 | 32 | M | 19/9/12 | 818387 | | Y | N | N | Y | N | | N | N | 9 | NEG | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |

# MASTER CHART

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 226 | 26 | M | 19/9/12 | 814930 | | N | Y | N | | N | Y | N | N | 8 | NEG | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 227 | 69 | M | 21/9/12 | 813781 | Y | N | N | N | Y | N | | N | Y | 7 | NEG | N | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N |
| 228 | 56 | F | 21/9/12 | 819257 | | N | Y | N | N | N | Y | N | N | 6 | NEG | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 229 | 49 | F | 21/9/12 | 819553 | | N | N | N | N | Y | N | N | N | 12 | NEG | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | Y | N | N | N | N |
| 230 | 34 | M | 21/9/12 | 819090 | | Y | N | N | N | N | Y | N | N | 8 | NEG | | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N |
| 231 | 66 | F | 23/9/12 | 817105 | | N | Y | N | N | N | Y | N | N | 7 | NEG | Y | N | N | N | N | N | N | N | N | Y | | N | N | N | N | N | Y | N | N | N | N | Y |
| 232 | 29 | F | 23/9/12 | 819841 | Y | N | N | Y | N | N | N | Y | N | 13 | NEG | Y | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | | N | N | N | N | N |
| 233 | 46 | M | 23/9/12 | 738497 | | N | N | Y | N | N | N | N | Y | 8 | NEG | N | N | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N |
| 234 | 65 | M | 25/9/12 | 819560 | | N | N | Y | N | N | N | Y | N | 9 | NEG | N | Y | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 235 | 72 | F | 25/9/12 | 762580 | Y | N | N | N | N | Y | N | N | N | 8 | NEG | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 236 | 33 | M | 25/9/12 | 806609 | | N | Y | N | N | | Y | N | N | 12 | NEG | N | Y | N | N | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 237 | 55 | F | 26/9/12 | 813799 | N | N | | N | N | Y | N | N | | 7 | NEG | N | N | Y | N | N | N | | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N |
| 238 | 69 | M | 26/9/12 | 802679 | N | N | Y | N | N | | N | N | Y | 6 | NEG | N | N | | N | N | Y | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N |
| 239 | 36 | F | 26/9/12 | 814002 | N | N | Y | N | N | Y | N | N | N | 12 | NEG | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 240 | 29 | F | 26/9/12 | 815875 | N | N | N | N | N | N | Y | N | N | 13 | NEG | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | Y |
| 241 | 42 | F | 28/9/12 | 811316 | N | N | N | N | N | Y | N | N | N | 9 | NEG | | N | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | |
| 242 | 66 | M | 28/9/12 | 816038 | | Y | N | N | N | Y | N | N | N | 8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N |
| 243 | 29 | M | 28/9/12 | 792081 | N | N | N | N | N | | N | N | N | 13 | NEG | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 244 | 32 | M | 28/9/12 | 809034 | N | N | N | N | N | Y | N | N | N | 12 | NEG | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 245 | 68 | F | 30/9/12 | 816023 | N | Y | N | N | N | N | N | N | Y | 13 | NEG | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 246 | 79 | F | 30/9/12 | 815940 | N | N | N | N | N | N | Y | N | N | 7 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 247 | 27 | M | 30/9/12 | 817294 | N | Y | N | N | N | N | N | Y | N | 14 | NEG | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N |
| 248 | 30 | M | 30/9/12 | 816885 | N | N | Y | N | Y | N | N | | N | 10 | NEG | N | N | N | Y | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N |
| 249 | 36 | M | 1/12/12 | 817539 | | N | Y | N | N | N | N | N | N | 10 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 250 | 26 | M | 1/12/12 | 640815 | Y | N | N | N | N | N | N | N | N | 9 | NEG | Y | N | N | N | N | N | Y | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N |
| 251 | 39 | M | 1/12/12 | 792081 | N | Y | N | Y | N | N | Y | N | N | 8 | NEG | N | N | N | N | N | Y | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 252 | 25 | F | 2/12/12 | 816105 | N | N | Y | | N | N | Y | N | N | 7 | NEG | N | Y | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 253 | 23 | F | 2/12/12 | 812091 | N | N | N | Y | N | N | N | Y | N | 8 | NEG | N | N | N | N | N | Y | N | Y | N | N | Y | N | N | N | N | N | N | N | N | N | N | N |
| 254 | 25 | F | 2/12/12 | 810638 | N | N | N | N | N | N | N | Y | N | 9 | NEG | N | N | N | N | N | Y | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N |
| 255 | 25 | F | 4/12/12 | 817263 | N | N | Y | N | Y | N | N | N | N | 10 | NEG | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 256 | 24 | M | 4/12/12 | 816382 | N | Y | N | N | | N | N | N | N | 9 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | Y | N | N | N |
| 257 | 55 | M | 4/12/12 | 795226 | N | N | N | N | Y | N | N | N | Y | 8 | NEG | N | Y | N | N | N | N | N | N | Y | | N | N | N | N | N | N | N | N | N | N | N | N |
| 258 | 60 | M | 4/12/12 | 817932 | N | Y | N | N | N | N | Y | N | N | 7 | NEG | | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 259 | 65 | M | 5/12/12 | 810893 | N | N | | Y | N | N | Y | N | N | 8 | NEG | N | N | Y | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 260 | 69 | F | 5/12/12 | 781198 | N | N | Y | N | N | N | Y | N | N | 8 | NEG | N | N | N | Y | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 261 | 48 | M | 5/12/12 | 817285 | | N | Y | N | N | N | | Y | N | 9 | NEG | N | N | Y | N | N | N | N | | N | N | Y | N | N | N | N | N | N | N | N | N | N | N |
| 262 | 84 | F | 7/12/12 | 817154 | N | N | Y | N | N | N | Y | N | N | 7 | NEG | | N | Y | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 263 | 80 | M | 7/12/12 | 818051 | N | N | Y | N | N | N | Y | N | N | 7 | NEG | Y | N | N | Y | N | | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N |
| 264 | 45 | M | 7/12/12 | 816673 | N | N | Y | N | N | N | | Y | N | 7 | NEG | N | N | Y | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N |
| 265 | 49 | F | 7/12/12 | 813732 | N | Y | N | N | N | N | Y | N | N | 8 | NEG | | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 266 | 53 | M | 7/12/12 | 814617 | N | Y | N | N | N | Y | N | N | N | 9 | NEG | | Y | N | N | N | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N |
| 267 | 52 | F | 8/12/12 | 818084 | N | Y | N | N | N | Y | N | N | N | 7 | NEG | N | N | N | N | N | Y | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N |
| 268 | 50 | M | 8/12/12 | 819364 | N | N | Y | N | N | N | N | Y | N | 7 | NEG | N | N | Y | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 269 | 62 | F | 8/12/12 | 804156 | N | Y | N | N | N | Y | N | N | N | 8 | NEG | N | N | | N | Y | N | N | | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 270 | 68 | F | 8/12/12 | 804446 | Y | N | N | N | N | N | Y | N | N | 8 | NEG | N | N | Y | N | | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 271 | 69 | M | 10/12/12 | 670476 | | N | N | N | Y | N | N | N | N | 8 | NEG | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 272 | 61 | F | 10/12/12 | 807284 | Y | N | N | N | N | Y | N | N | N | 8 | NEG | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 273 | 73 | M | 10/12/12 | 809094 | | N | N | Y | N | N | N | N | N | 8 | NEG | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 274 | 75 | F | 10/12/12 | 803416 | Y | N | Y | Y | N | N | N | N | Y | 9 | NEG | N | N | Y | N | N | Y | N | N | N | N | | N | N | N | N | N | N | N | N | N | N | N |
| 275 | 70 | M | 12/12/1/2 | 808932 | YH | N | N | Y | N | N | N | Y | N | 8 | NEG | N | N | N | Y | N | | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N |
| 276 | 84 | F | 12/12/12 | 808019 | N | Y | N | N | N | Y | | N | N | 8 | NEG | N | N | Y | | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N |
| 277 | 80 | M | 12/1/2/12 | 795055 | N | Y | N | N | N | N | Y | N | N | 8 | NEG | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 278 | 59 | F | 12/12//12 | 801892 | Y | N | N | N | Y | N | | N | N | 8 | NEG | | Y | N | N | N | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N |
| 279 | 61 | F | 12/12/12 | 727021 | Y | N | N | N | N | N | Y | N | N | 8 | NEG | -ve | N | N | N | N | Y | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N |
| 280 | 60 | F | 14/12/12 | 799785 | N | Y | N | N | N | N | N | N | N | 7 | NEG | -ve | N | Y | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 281 | 26 | F | 14/12/12 | 801806 | N | N | N | N | N | N | N | N | Y | 7 | NEG | -ve | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |

# MASTER CHART

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 282 | 28 | M | 14//12/12 | 801187 | Y | N | Y | N | N | N | N | N | N | 9 | NEG | -ve | N | Y | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 283 | 29 | M | 16/12/12 | 801444 | N | N | N | N | N | N | Y | N | N | 9 | NEG | -ve | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 284 | 26 | M | 16/12/12 | 743904 | N | Y | N | N | Y | N | N | N | N | 9 | NEG | -ve | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 285 | 69 | M | 16/12/12 | 801497 | N | N | N | N | N | N | Y | N | N | 7 | NEG | -ve | | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 286 | 72 | F | 17/12/12 | 800495 | N | Y | N | N | N | N | N | N | N | 7 | NEG | -ve | N | Y | N | N | Y | N | N | N | N | | N | N | N | N | N | N | N | N | N | N | N |
| 287 | 65 | M | 17/12/12 | 900354 | YES | YES | N | Y | N | N | Y | N | YES | 9 | NEG | -ve | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | | N | YES |
| 288 | 35 | M | 17/12/12 | 882523 | | YES | N | N | N | N | N | N | N | 8 | NEG | -ve | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES | N | |
| 289 | 58 | M | 17/12/12 | 903007 | | YES | N | Y | N | N | Y | N | N | 8 | NEG | -ve | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 290 | 50 | F | 17/12/12 | 892384 | YES | YES | N | N | N | N | N | N | N | 8 | NEG | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 291 | 45 | M | 19/12/12 | 860814 | YES | YES | N | Y | N | N | Y | N | N | 8 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 292 | 33 | M | 19/12/12 | 862037 | YES | | N | N | N | N | N | N | N | 8 | NEG | N | N | N | N | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 293 | 52 | M | 19/12/12 | 861765 | | YES | N | Y | N | N | Y | N | N | 7 | NEG | N | N | N | YES | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 294 | 49 | M | 19/12/12 | 862070 | YES | YES | N | N | N | N | N | YES | N | 7 | NEG | N | N | N | N | | | YES | | | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 295 | 36 | M | 21/12/12 | 871753 | YES | YES | N | N | Y | N | N | | YESS | 9 | NEG | N | N | N | N | N | N | N | N | N | | N | N | N | YES | N | N | N | N | N | N | N | N |
| 296 | 27 | M | 21/12/12 | 890844 | Y | YES | N | N | Y | N | N | YES | N | 9 | NEG | N | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N |
| 297 | 28 | M | 21/12/12 | 891785 | | YES | N | N | Y | N | N | | N | 9 | NEG | N | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N |
| 298 | 42 | M | 21/12/12 | 894308 | Y | N | N | N | | Y | N | | N | 7 | NEG | N | N | N | Y | N | N | N | N | N | | N | N | N | N | Y | N | N | N | N | N | Y | N |
| 299 | 65 | F | 23/12/12 | 871107 | YES | N | Y | N | N | Y | N | YES | N | 9 | NEG | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | | N |
| 300 | 45 | F | 24/12/12 | 870479 | YES | N | N | N | N | N | N | N | N | 8 | NEG | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES | N |
| 301 | 50 | F | 24/12/12 | 872072 | YES | N | Y | N | N | Y | N | N | N | 8 | NEG | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 302 | 49 | F | 24/12/12 | 870960 | YES | N | N | N | N | N | N | N | N | 8 | NEG | | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 303 | 43 | F | 24/12/12 | 870722 | YES | N | Y | N | N | Y | N | N | N | 8 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 304 | 60 | M | 24/12/12 | 856179 | | N | N | N | N | | N | N | N | 8 | NEG | N | N | N | N | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 305 | 76 | M | 26/12/12 | 870860 | YES | N | Y | N | N | Y | N | N | N | 7 | NEG | N | N | N | YES | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 306 | 22 | M | 26/12/12 | 868883 | YES | N | N | N | N | N | YES | N | N | 7 | NEG | N | N | N | N | | | YES | | | N | N | N | N | YES | N | N | N | N | N | N | N | N |
| 307 | 55 | M | 26/12/12 | 869969 | YES | N | N | Y | N | N | | YESS | N | 9 | NEG | N | N | N | N | N | N | N | N | N | | N | N | N | N | YES | N | N | N | N | N | N | N |
| 308 | 70 | M | 28/12/12 | 870248 | YES | N | N | Y | N | N | YES | N | N | 9 | NEG | N | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N |
| 309 | 50 | F | 28/12/12 | 869582 | YES | N | N | Y | N | N | | N | N | 9 | NEG | N | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N |
| 310 | 36 | m | 28/12/12 | 801187 | | N | N | N | Y | N | | N | N | 7 | NEG | N | N | N | Y | N | N | N | N | N | | N | N | N | N | N | Y | N | N | N | N | N | Y |
| 311 | 40 | M | 30/12/12 | 799473 | | N | Y | N | N | N | | N | N | 10 | NEG | N | N | Y | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 312 | 26 | F | 30/12/12 | 801444 | N | Y | N | N | N | | N | N | Y | 12 | NEG | N | N | N | Y | | | N | N | N | N | | | N | N | N | N | N | N | N | N | N | N |
| 313 | 30 | M | 30/12/12 | 743904 | N | Y | N | N | N | Y | N | N | N | 9 | NEG | N | N | N | N | N | Y | N | N | N | N | | Y | N | N | N | N | N | N | N | N | N | N |
| 314 | 36 | M | 1/1/13 | 801497 | N | N | N | | Y | N | N | N | N | 10 | NEG | N | Y | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N |
| 315 | 38 | M | 1/1/13 | 800495 | N | N | N | Y | N | N | N | N | N | 8 | NEG | Y | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 316 | 39 | F | 1/1/13 | 79506 | Y | N | Y | N | N | N | N | Y | N | 12 | NEG | N | N | N | N | | N | N | N | N | N | N | N | | Y | N | N | N | N | N | N | N | N |
| 317 | 40 | F | 1//1/13 | 795995 | N | N | N | N | N | Y | N | N | N | 10 | NEG | N | N | N | N | | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 318 | 40 | F | 3/1/13 | 799473 | N | N | Y | N | N | N | N | N | N | 10 | NEG | N | N | N | N | Y | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 319 | 51 | M | 3/1/13 | 801378 | N | Y | | N | N | Y | N | N | N | 9 | NEG | N | Y | N | N | N | N | Y | N | | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 320 | 55 | M | 3/1/13 | 801777 | N | N | Y | N | N | N | N | N | N | 8 | NEG | Y | Y | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 321 | 25 | M | 3/1/13 | 801892 | N | N | Y | N | N | N | Y | N | N | 13 | NEG | N | N | N | Y | Y | N | N | N | | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 322 | 23 | M | 3/1/13 | 727021 | Y | N | N | Y | N | N | | N | N | 9 | NEG | N | N | N | N | Y | N | N | N | | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 323 | 25 | M | 3/1/13 | 804446 | | Y | N | | N | N | Y | N | N | 12 | NEG | N | N | N | N | | N | N | Y | | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 324 | 26 | F | 5/13/13 | 788116 | N | Y | N | N | Y | N | N | N | N | 8 | NEG | N | N | Y | N | N | N | N | N | | Y | N | N | N | N | N | N | N | N | N | N | N | N |
| 325 | 30 | F | 5/1/13 | 801137 | Y | N | N | N | | Y | N | N | N | 9 | NEG | N | N | | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 326 | 36 | F | 5/1/13 | 800984 | N | N | N | N | Y | N | N | N | N | 9 | NEG | N | N | | N | N | N | N | N | | N | N | N | Y | N | N | N | N | N | N | N | N | N |
| 327 | 38 | F | 5/1/13 | 800409 | N | N | Y | N | N | N | N | N | N | 9 | NEG | N | N | N | N | Y | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 328 | 39 | F | 5/1/13 | 799863 | N | Y | N | N | N | N | Y | N | N | 9 | NEG | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 329 | 40 | F | 7/1/13 | 801188 | N | N | Y | N | N | N | | Y | | 9 | NEG | Y | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N |
| 330 | 40 | F | 7/1/13 | 799910 | N | N | Y | N | N | N | N | N | N | 8 | NEG | N | | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 331 | 51 | M | 7/1/13 | 642712 | Y | N | N | N | | Y | N | N | N | 10 | NEG | N | Y | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 332 | 55 | M | 7/1/13 | 799191 | N | N | N | N | Y | N | N | N | N | 10 | NEG | N | | N | N | N | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | |
| 333 | 25 | M | 7/1/13 | 797995 | N | Y | N | N | | N | Y | | | 8 | NEG | N | Y | N | N | N | N | N | N | N | Y | N | N | N | | N | N | N | N | N | N | N | Y |
| 334 | 23 | M | 9/1/13 | 798256 | N | | N | N | Y | N | N | N | N | 8 | NEG | N | | N | Y | N | N | N | N | N | | N | N | N | | N | N | N | N | N | N | N | |
| 335 | 50 | M | 9/1/13 | 834360 | | N | | N | N | Y | N | N | N | 7 | NEG | Y | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 336 | 45 | F | 9/1/13 | 836601 | Y | N | Y | N | N | N | N | N | N | 7 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 337 | 68 | M | 9/1/13 | 835200 | Y | Y | N | N | N | N | N | N | N | 8 | NEG | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |

# MASTER CHART

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| 338 | 60 | M | 9/1/13 | 836521 | | N | N | N | N | N | N | N | N | 8 | NEG | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 339 | 60 | F | 9/1/13 | 836838 | | N | Y | N | N | N | N | N | N | 8 | NEG | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 340 | 44 | M | 11/1/13 | 832052 | Y | N | N | N | N | N | N | N | N | 9 | NEG | | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 341 | 31 | M | 11/1/13 | 836362 | Y | N | N | N | N | N | N | N | N | 7 | NEG | Y | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 342 | 65 | M | 11/1/13 | 831169 | Y | N | N | N | N | N | N | N | N | 9 | NEG | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES | N | N | N |
| 343 | 20 | M | 12/1/13 | 837847 | | N | Y | N | N | N | N | N | N | 8 | NEG | | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 344 | 60 | M | 12/1/13 | 835932 | | N | Y | N | N | N | N | N | N | 10 | NEG | Y | N | N | N | YES | N | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 345 | 40 | M | 12/1/13 | 837469 | | N | Y | N | N | N | N | N | N | 10 | NEG | | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 346 | 41 | M | 14/1/13 | 903969 | | N | N | N | N | N | Y | N | N | 9 | NEG | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 347 | 60 | M | 14/1/13 | 899110 | YES | N | N | N | N | Y | | N | N | 7 | NEG | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 348 | 49 | M | 14/1/13 | 903658 | | N | Y | N | N | N | Y | N | N | 9 | NEG | | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 349 | 72 | M | 14/1/13 | 903148 | YES | N | N | N | N | Y | | N | N | 8 | NEG | Y | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 350 | 18 | F | 14/1/13 | 904277 | YES | N | Y | N | N | N | | N | N | 10 | NEG | | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 351 | 50 | M | 15/1/13 | 903532 | YES | N | N | N | N | Y | Y | N | N | 10 | NEG | | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 352 | 97 | M | 15/1/13 | 903902 | YES | N | Y | N | N | N | | N | N | 7 | NEG | | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 353 | 32 | M | 15/1/13 | 904073 | YES | N | | N | N | Y | Y | N | N | 7 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 354 | 39 | M | 17/1/13 | 905063 | YES | N | Y | N | N | N | | N | N | 8 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 355 | 70 | F | 17/1/13 | 904929 | N | YES | | N | N | Y | Y | N | N | 8 | NEG | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 356 | 56 | M | 17/1/13 | 892596 | N | YES | Y | N | N | N | | N | N | 8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 357 | 60 | M | 19/1/13 | 904528 | Y | | N | N | N | N | N | N | N | 11.1 | NEG | N | N | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | |
| 358 | 65 | M | 19/1/13 | 904966 | N | Y | N | N | N | N | N | N | N | 12.2 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 359 | 45 | F | 19/1/13 | 866185 | Y | N | N | N | N | N | N | N | N | 8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 360 | 59M | M | 19/1/13 | 906341 | Y | N | N | N | N | N | N | N | N | 9.3 | NEG | N | N | N | YES | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 361 | 17 | F | 20/1/13 | 901281 | Y | N | N | N | N | N | N | N | N | 7.8 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 362 | 60F | F | 20/1/13 | 866891 | Y | N | N | N | N | N | N | N | N | 8.8 | NEG | N | N | N | N | YES | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 363 | 38 | F | 20/1/13 | 907045 | N | N | N | Y | N | N | N | N | N | 13.4 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 364 | 36 | M | 20/1/13 | 905025 | N | N | N | | N | N | N | N | N | 14.5 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 365 | 48 | M | 21/1/13 | 906589 | N | N | N | YES | N | N | N | N | N | 16.3 | NEG | N | N | N | N | YES | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 366 | 52 | F | 21/1/13 | 908480 | N | N | N | YES | N | N | N | N | N | 10.5 | NEG | N | N | N | YES | | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 367 | 54 | M | 21//1/13 | 907833 | N | N | YES | | N | N | N | N | N | 6.5 | NEG | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 368 | 75 | M | 22/1/13 | 907125 | Y | N | Y | Y | N | Y | N | Y | Y | 8 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | |
| 369 | 30M | M | 22/1/13 | 905959 | YES | N | | N | N | | N | Y | | 9.3 | NEG | N | N | N | N | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 370 | 48 | F | 22/1/13 | 910377 | YES | N | Y | N | N | Y | N | | Y | 7.8 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 371 | 40 | M | 25/1/13 | 909423 | YES | N | N | N | N | | N | | | 8.8 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 372 | 28 | F | 25/1/13 | 85145 | YES | N | N | N | N | Y | N | | Y | 13.4 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 373 | 27 | M | 25/1/13 | 910722 | YES | N | N | N | N | | N | Y | | 14.5 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 374 | 75 | M | 25/1/13 | 910231 | | YES | N | N | N | Y | N | | Y | 16.3 | NEG | N | N | N | N | N | YES | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 375 | 30 | F | 25/1/13 | 911604 | YES | N | N | N | N | | N | | | 10.5 | NEG | N | N | N | N | YES | N | N | N | N | | N | N | N | N | N | N | N | N | N | N | N | N |
| 376 | 35 | M | 27/1/13 | 909453 | YES | N | N | N | N | Y | N | Y | | 6.5 | NEG | N | N | N | N | YES | N | N | N | N | | N | N | N | N | N | N | N | N | N | N | N | N |
| 377 | 40 | M | 27/1/13 | 911873 | YES | N | N | N | N | | N | | | 7 | NEG | N | N | N | YES | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N |
| 378 | 31 | M | 27/1/13 | 914376 | YES | N | N | N | N | Y | N | | Y | 9 | NEG | N | N | N | YES | N | N | N | N | N | | N | N | N | N | N | N | N | N | N | N | N | N |
| 379 | 65 | F | 29/1/13 | 912356 | YES | N | YES | N | N | N | N | N | N | 8 | NEG | N | N | N | YES | | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N |
| 380 | 44 | M | 29/1/13 | 913429 | YES | N | | N | N | N | N | N | N | 7 | NEG | N | N | N | N | YES | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 381 | 40 | M | 29/1/13 | 914245 | YES | N | YES | N | N | N | N | N | N | 8 | NEG | N | N | N | N | YES | N | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 382 | 55 | M | 29/1/13 | 913301 | YES | N | N | N | N | N | N | N | N | 8 | NEG | N | N | N | N | Y | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 383 | 37 | M | 31/1/13 | 913741 | YES | N | N | N | N | N | N | N | N | 9.3 | NEG | N | N | N | N | | YES | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 384 | 23 | M | 31/1/13 | 913392 | YES | N | N | N | N | N | | | N | 7.8 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 385 | 80 | M | 31/1/13 | 914382 | | N | N | N | N | N | YES | YES | N | 8.8 | NEG | N | N | N | N | | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N |
| 386 | 63 | M | 31/1/13 | 914549 | YES | N | N | N | N | N | YES | N | N | 13.4 | NEG | N | N | N | N | | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N |
| 387 | 45 | M | 1/2/13 | 914571 | YES | N | N | N | N | N | | N | N | 14.5 | NEG | N | N | N | N | | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N |
| 388 | 63 | M | 1/2/13 | 912890 | YES | N | N | N | N | N | | N | N | 16.3 | NEG | N | N | N | YES | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 389 | 39 | F | 1/2/13 | 914056 | YES | N | N | N | N | N | YES | N | N | 10.5 | NEG | N | N | N | | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| **390** | **40** | **M** | **3/2/13** | **914290** | **Y** | **N** | N | | **N** | **N** | **Y** | **N** | N | 8 | **NEG** | N | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **YES** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** |
| **391** | **30** | **F** | **3/2/13** | **913279** | **Y** | **N** | N | **Y** | **N** | **N** | **YES** | **N** | N | 7 | **NEG** | N | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **YES** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** |
| **392** | **35** | **F** | **3/2/13** | **914049** | **Y** | **N** | **Y** | NEG | **N** | **N** | **N** | **YES** | N | 8 | **NEG** | N | **N** | **N** | **N** | **YES** | **N** | **N** | **N** | **N** | | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** |
| **393** | **50** | **M** | **3/2/13** | **914698** | **Y** | **N** | **Y** | NEG | **N** | **N** | **N** | **YES** | N | 8 | **NEG** | N | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **YES** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** |

# MASTER CHART

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| **394** | **43** | **M** | **3/2/13** | **914901** | **Y** | **N** | **N** | **Y** | **N** | **N** | **N** | **YES** | N | 9.3 | **POS** | N | **N** | **N** | **N** | **YES** | **N** | **N** | **N** | **N** | | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** |
| **395** | **32** | **M** | **5/2/13** | **914986** | **YES** | **N** | **Y** | | **N** | **Y** | **N** | **YES** | N | 7.8 | **NEG** | N | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **YES** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** |
| **396** | **32** | **M** | **5/2/13** | **853223** | **YES** | **N** | **N** | **Y** | **N** | **Y** | **N** | **YES** | N | 8.8 | **NEG** | N | **N** | **N** | **YES** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** |
| **397** | **30** | **F** | **5/2/13** | **853224** | **YES** | **N** | **Y** | **N** | **N** | | **YES** | **N** | N | **13** | **NEG** | N | **N** | **N** | | **N** | **N** | **N** | **N** | **N** | **N** | **YES** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** |
| **398** | **60** | **M** | **7/2/13** | **851005** | **YES** | **N** | **Y** | **N** | **N** | **Y** | **YES** | **N** | N | **11** | **POS** | N | **N** | **N** | **YES** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** |
| **399** | **30** | **M** | **7/2/13** | **852916** | **YES** | **N** | **N** | **N** | **N** | **Y** | **YES** | **N** | N | **1214** | **NEG** | N | **N** | **N** | **YES** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** |
| **400** | **65** | **M** | **7/2/13** | **851582** | **YES** | **N** | **Y** | **N** | **N** | **Y** | **YES** | **N** | N | | **NEG** | N | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **YES** | **N** | **N** |
| 401 | 25 | F | 9/2/13 | 852246 | YES | N | NEG | Y | N | N | **N** | Y | N | 9 | NEG | N | N | N | N | N | N | N | N | N | | N | N | N | N | N | N | N | N | N | N | YES |
| 402 | 38 | F | 9/2/13 | 856647 | | N | YES | **N** | N | N | YES | **N** | N | 11 | NEG | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N |
| 403 | 48 | M | 9/2/13 | 855257 | YES | N | **N** | **N** | N | N | YES | Y | N | 14 | NEG | N | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N |
| 404 | 60 | M | 9/2/13 | 855079 | YES | N | Y | **N** | N | N | **N** | **N** | N | 8 | NEG | Y | N | N | N | YES | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 405 | 23 | F | 10/2/13 | 853612 | YES | Y | NEG | Y | N | N | YES | Y | N | 7.9 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 406 | 70 | M | 10/2/13 | 855517 | YES | N | Y | **N** | N | N | YES | YES | N | 8.8 | NEG | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 407 | 45 | F | 10/2/13 | 850400 | YES | Y | NEG | **N** | N | N | NEG | **N** | N | 9.9 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 408 | 43 | M | 10/2/13 | 855458 | YES | N | Y | **N** | N | N | NEG | **N** | N | 8.7 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 409 | 55 | M | 12/2/13 | 866076 | YES | Y | **N** | Y | N | N | YES | Y | N | 12.4 | NEG | N | N | N | N | | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N |
| 410 | 36 | F | 12/2/13 | 865343 | YES | N | Y | NEG | N | N | YES | | N | 13.5 | NEG | N | N | N | N | YES | N | N | N | N | | N | N | N | N | N | N | N | N | N | N | N |
| 411 | 70 | M | 12/2/13 | 866299 | YES | N | NEG | Y | N | N | YES | Y | N | 14.5 | NEG | N | N | N | N | | N | N | | YES | | N | N | N | N | N | N | N | N | N | N | N |
| 412 | 68 | M | 14/2/13 | 862321 | YES | N | NEG | N | N | N | YES | N | N | 8.8 | NEG | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N |
| 413 | 35 | M | 14/2/13 | 866413 | YES | N | Y | N | N | N | **N** | N | N | 9.9 | NEG | N | N | N | N | N | N | YES | | YES | N | N | N | N | N | N | N | N | N | N | N | N |
| 414 | 53 | M | 14/2/13 | 857111 | YES | N | Y | N | N | N | **N** | N | N | 8.7 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 415 | 48 | M | 15/2/13 | 856833 | YES | N | N | Y | N | N | N | N | N | 12.4 | NEG | N | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N |
| 416 | 45 | M | 15/2/13 | 856649 | YES | N | N | Y | N | N | N | N | N | 13.5 | NEG | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N |
| 417 | 74 | M | 15/2/13 | 833639 | YES | N | Y | N | N | N | N | N | N | 14.5 | NEG | N | N | N | N | YES | N | N | N | | N | N | N | N | N | N | N | N | N | N | N | N |
| 418 | 43 | M | 15/2/13 | 857295 | YES | N | Y | N | N | N | N | N | N | 8.8 | NEG | Y | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N |
| 419 | 25 | M | 17/2/13 | 847222 | YES | N | Y | N | N | N | N | N | N | 9.9 | NEG | | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 420 | 28 | M | 17/2/13 | 857288 | YES | N | | N | N | N | N | N | N | 8.7 | NEG | Y | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N |
| 421 | 65 | F | 19/2/13 | 857380 | YES | N | Y | N | N | N | N | N | N | 12.4 | NEG | N | N | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N |
| 422 | 38 | M | 19/2/13 | 856862 | N | N | Y | N | N | N | N | N | N | 13.5 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 423 | 60 | F | 19/2/13 | 847162 | YES | N | N | N | N | N | N | N | N | 8.8 | NEG | N | N | N | YES | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 424 | 45 | F | 19/2/13 | 857447 | YES | N | N | N | N | N | N | YES | N | 9.9 | NEG | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 425 | 35 | F | 19/2/13 | 858110 | YES | N | N | N | N | N | N | N | N | 8.7 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 426 | 48M | M | 19/2/13 | 856833 | YES | N | N | N | N | N | N | N | N | 12.4 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N |
| 427 | 52 | M | 21/2/13 | 856016 | YES | N | N | N | N | N | N | YES | N | 13.5 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 428 | 79 | M | 21/2/13 | 804834 | YES | N | N | N | N | N | N | YES | N | 8.8 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 429 | 20 | F | 21/2/13 | 828992 | YES | N | N | N | N | N | N | N | N | 9.9 | NEG | N | N | N | N | | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 430 | 49 | F | 21/2/13 | 857363 | YES | N | N | N | N | N | N | YES | N | 8.7 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 431 | 19 | M | 21/2/13 | 857272 | YES | N | N | N | N | N | N | N | N | 12.4 | NEG | N | N | N | N | YES | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 432 | 54 | M | 21/2/13 | 768462 | YES | N | N | N | N | N | N | YES | N | 13.5 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 433 | 62 | M | 23/2/13 | 860842 | | N | N | N | N | N | N | YES | N | 14.5 | NEG | N | N | N | N | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 434 | 33 | M | 23/2/13 | 859414 | YES | N | N | N | N | N | N | YES | N | 9 | NEG | N | N | N | N | YES | | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 435 | 60 | F | 27/2/13 | 859317 | YES | N | N | N | N | N | N | YES | N | 8.8 | NEG | N | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N |
| 436 | 50 | M | 27/2/13 | 860515 | YES | N | N | N | N | N | N | N | N | 6.9 | NEG | N | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N |
| 437 | 40 | M | 27/2/13 | 860852 | | N | N | N | N | N | N | N | N | 8.9 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 438 | 39 | M | 29/2/13 | 861361 | YES | N | N | N | N | N | N | N | N | 9.9 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 439 | 60 | M | 29/2/13 | 828308 | | N | N | N | N | N | N | N | N | 8.8 | NEG | N | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | |
| 440 | 75 | F | 29/2/13 | 863322 | YES | N | N | N | N | N | N | YES | N | 9.9 | NEG | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | |
| 441 | 43 | M | 2/3/13 | 865386 | YES | N | N | N | N | N | N | YES | N | 8.7 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 442 | 48 | M | 2/3/13 | 866195 | YES | N | N | N | N | N | N | YES | N | 12.4 | NEG | N | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | |
| 443 | 70 | M | 4/3/13 | 865657 | YES | N | N | N | N | N | N | YES | N | 13.5 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 444 | 59 | F | 4/3/13 | 865882 | YES | N | N | N | N | N | N | N | N | 14.5 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 445 | 60 | M | 6/3/13 | 867186 | YES | N | Y | Y | N | N | Y | N | N | 11 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 446 | 65 | M | 6/3/13 | 862252 | YES | N | | N | N | N | N | YES | N | 12 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 447 | 60 | F | 6/3/13 | 862424 | YES | N | Y | N | N | N | N | YES | N | 12 | NEG | N | N | N | YES | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 448 | 53 | F | 6/3/13 | 861760 | YES | N | | N | N | N | N | | N | 9 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 449 | 30 | F | 9/3/13 | 861319 | | N | Y | N | N | N | N | | N | 8 | NEG | N | N | N | N | YES | N | YES | N | N | | N | N | N | N | N | N | N | N | N | N | N | N |

# MASTER CHART

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| 450 | 28 | M | 9/3/13 | 862483 | YES | N | | Y | N | N | Y | YES | N | 9 | NEG | N | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N |
| 451 | 35 | F | 9/3/13 | 837683 | Y | N | Y | N | N | N | N | **N** | N | 11 | NEG | N | N | N | N | N | N | N | N | N | | N | N | N | N | N | N | N | N | N | N | YES |
| 452 | 62 | M | 11/03/13 | 837603 | Y | N | | N | N | N | N | **N** | N | 12 | NEG | N | N | N | N | Y | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 453 | 55 | F | 11/03/13 | 839294 | **N** | N | Y | Y | N | Y | N | **N** | N | 12 | NEG | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 454 | 65 | F | 11/03/13 | 837839 | Y | N | N | N | N | N | N | **N** | N | 9 | NEG | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 455 | 45 | F | 14/03/13 | 838557 | Y | N | N | Y | N | N | Y | **N** | N | 8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 456 | 50 | F | 14/03/13 | 839415 | Y | N | Y | Y | N | Y | Y | **N** | N | 9 | NEG | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 457 | 42 | M | 15/03/13 | 839430 | Y | N | N | N | N | N | N | N | N | 11 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 458 | 74 | M | 15/03/13 | 837824 | Y | N | Y | N | Y | N | N | N | N | 12 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 459 | 45 | M | 16/03/13 | 833903 | Y | Y | N | N | N | N | N | N | N | 12 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES | N | N | N | N |
| 460 | 79 | M | 16/03/13 | 840019 | Y | N | N | N | N | N | N | N | N | 9 | NEG | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 461 | 35 | F | 18/03/13 | 839405 | Y | Y | N | N | N | N | N | N | N | 8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 462 | 47 | M | 18/03/13 | 839956 | Y | N | Y | Y | N | N | Y | | N | 11 | NEG | N | N | N | N | YES | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 463 | 44 | M | 18/3/13 | 832052 | Y | N | | N | N | N | N | YES | N | 12 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 464 | 26 | M | 20/3/13 | 837731 | YES | N | Y | N | N | N | N | YES | N | 12 | NEG | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 465 | 60 | F | 20/3/13 | 795390 | YES | N | **N** | N | N | N | N | N | N | 9 | NEG | N | N | N | N | YES | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 466 | 60 | F | 20/3/13 | 829787 | | N | Y | N | N | N | N | N | N | 8 | NEG | N | N | N | N | YES | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 467 | 23 | M | 22/3/13 | 842122 | YES | N | **N** | Y | N | N | Y | YES | N | 9 | NEG | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 468 | 74 | M | 22/3/13 | 842783 | YES | N | Y | N | N | N | N | N | N | 11 | NEG | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 469 | 35 | M | 22/3/13 | 839231 | **N** | N | | N | N | N | N | N | N | 12 | NEG | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 470 | 63 | M | 25/3/13 | 823978 | **N** | N | Y | Y | N | Y | N | N | N | 12 | NEG | N | N | N | N | Y | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 471 | 23 | M | 25/3/13 | 842122 | **N** | N | **N** | | N | N | N | N | N | 9 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES | N | N | N | N |
| 472 | 45 | F | 25.3.13 | 845230 | **N** | N | **N** | Y | N | N | Y | N | N | 8 | NEG | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 473 | 54 | M | 28/3/13 | 843992 | Y | N | N | Y | N | N | N | N | N | 15 | NEG | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 474 | 50 | F | 28/3/13 | 845402 | Y | N | N | N | N | N | N | N | N | 8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 475 | 16 | F | 28/3/13 | 846820 | Y | N | N | N | N | N | N | Y | N | 9 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 476 | 50 | M | 31/3/13 | 845229 | N | N | Y | Y | N | N | N | N | N | 12 | NEG | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 477 | 28 | M | 31/3/13 | 844439 | N | N | Y | N | N | N | N | Y | N | 13 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 478 | 47 | M | 31/3/13 | 838606 | N | N | **N** | N | N | N | N | N | N | 14 | NEG | N | N | N | N | | N | N | N | N | N | N | N | N | N | N | N | N | N | YES | N |
| 479 | 46 | F | 2/4/13 | 794271 | Y | N | Y | Y | N | N | N | N | N | 7 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 480 | 36 | M | 2/4/13 | 846670 | **N** | N | N | | N | N | N | Y | N | 9 | NEG | **N** | N | N | N | | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N |
| 481 | 37 | F | 2/4/13 | 848897 | **N** | N | N | Y | N | N | N | N | N | 10 | NEG | **N** | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 482 | 28 | M | 5/4/13 | 849096 | Y | N | N | | N | N | N | N | N | 13 | NEG | **N** | N | N | N | | N | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N |
| 483 | 35 | M | 5/4/13 | 847020 | **N** | N | N | Y | N | N | N | Y | N | 15 | NEG | **N** | N | N | N | YES | N | N | N | N | N | N | N | N | | N | N | N | N | N | N | N |
| 484 | 32 | M | 5/4/13 | 848242 | Y | N | Y | Y | N | Y | N | N | N | 8.8 | NEG | **N** | N | N | N | Y | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 485 | 30 | F | 7/4/13 | 847442 | | N | N | Y | N | N | N | N | N | 9.9 | NEG | **N** | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 486 | 27 | M | 7/4/13 | 847963 | Y | N | Y | **N** | N | Y | N | N | N | 11 | NEG | **N** | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 487 | 55 | F | 7/4/13 | 847872 | Y | N | N | **N** | N | | N | N | N | 12 | NEG | **N** | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 488 | 37 | M | 10/4/13 | 849362 | Y | N | N | **N** | N | Y | N | N | N | 10 | NEG | **N** | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 489 | 60 | F | 10/4/13 | 862424 | N | N | Y | **N** | N | | N | N | N | 8 | NEG | **N** | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 490 | 80 | F | 13/4/13 | 828992 | N | N | N | Y | N | Y | N | N | N | 8.8 | NEG | **N** | N | N | N | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 491 | 57 | M | 13/4/13 | 871787 | N | N | N | N | N | | N | N | N | 9.9 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 492 | 69 | M | 13/4/13 | 871864 | N | N | N | N | N | N | N | N | N | 11 | NEG | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 493 | 43 | M | 16/4/13 | 873053 | N | N | N | N | N | N | N | N | N | 12 | NEG | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 494 | 30 | M | 16/4/13 | 872838 | N | N | N | N | N | N | N | N | N | 8.8 | NEG | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N |
| 495 | 40 | M | 18/4/13 | 873427 | | N | N | N | N | N | N | N | N | 8.8 | NEG | N | N | N | N | N | YES | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 496 | 65 | F | 18/4/13 | 872794 | Y | N | N | N | N | N | N | N | N | 9.8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 497 | 32 | M | 21/4/13 | 873831 | N | N | N | Y | N | N | N | N | N | 10 | NEG | N | N | N | N | | YES | | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 498 | 75 | M | 21/4/13 | 873372 | N | N | Y | N | N | N | N | N | N | 9 | NEG | N | N | N | N | YES | | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 499 | 50 | F | 21/4/13 | 873821 | Y | N | Y | N | N | N | N | N | N | 8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 500 | 60 | F | 25/4/13 | 873525 | | N | Y | N | N | N | N | N | N | 8.8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 501 | 65 | M | 25/4/13 | 875516 | Y | N | N | N | N | N | N | N | N | 9.8 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 502 | 60 | M | 25/4/13 | 874101 | Y | N | N | N | N | N | Y | N | N | 10 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 503 | 70 | M | 29/4/13 | 874137 | | N | N | N | N | N | Y | N | N | 9 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 504 | 60 | F | 29/4/13 | 874804 | Y | N | Y | N | N | N | Y | N | N | 8 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |

# MASTER CHART

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 505 | 55 | M | 29/4/13 | 875520 | Y | N | Y | N | N | N | | N | N | 8.8 | NEG | N | N | N | N | YES | YES | | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 506 | 40 | M | 2/5/2013 | 873427 | | N | N | N | N | N | N | N | N | 8.8 | NEG | N | N | N | N | N | YES | | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 507 | 65 | F | 2/5/2013 | 872794 | Y | N | N | N | N | N | N | N | N | 9.8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 508 | 32 | M | 2/5/2013 | 873831 | N | N | | Y | N | N | N | N | N | 10 | NEG | N | N | N | N | | YES | | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 509 | 75 | M | 5/5/2013 | 873372 | N | N | Y | N | N | N | N | N | N | 9 | NEG | N | N | N | N | YES | | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 510 | 50 | F | 5/5/2013 | 873821 | Y | N | Y | N | N | N | N | N | N | 8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 511 | 60 | F | 8/5/2013 | 873525 | | N | Y | N | N | N | N | N | N | 8.8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 512 | 65 | M | 8/5/2013 | 875516 | Y | N | N | N | N | N | N | N | N | 9.8 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 513 | 60 | M | 11/5/2013 | 874101 | Y | N | N | N | N | N | Y | N | N | 10 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 514 | 70 | M | 11/5/2013 | 874137 | | N | N | N | N | N | Y | N | N | 9 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 515 | 60 | F | 11/5/2013 | 874804 | Y | N | Y | N | N | N | Y | N | N | 8 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 516 | 55 | M | 14/5/13 | 875520 | Y | N | Y | N | N | N | | N | N | 8.8 | NEG | N | N | N | N | YES | YES | | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 517 | 48 | F | 14/5/13 | 876155 | | N | N | N | N | N | N | N | N | 8.8 | NEG | N | N | N | N | N | YES | | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 518 | 42 | F | 14/5/13 | 876521 | Y | N | N | N | N | N | N | N | N | 9.8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 519 | 70 | F | 16/5/13 | 869529 | N | N | | Y | N | N | N | N | N | 10 | NEG | N | N | N | N | | YES | | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 520 | 56 | F | 16/5/13 | 877207 | N | N | Y | | N | N | N | N | N | 9 | NEG | N | N | N | N | YES | | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 521 | 74 | M | 16/5/13 | 845326 | Y | N | Y | | N | N | N | N | N | 8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 522 | 73 | M | 19/5/1 | 876531 | | N | Y | | N | N | N | N | N | 8.8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 523 | 30 | M | 19/5/13 | 878558 | Y | N | N | N | N | N | N | N | N | 9.8 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 524 | 36 | M | 19/5/13 | 876134 | Y | N | N | N | N | **N** | Y | N | N | 10 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 525 | 41 | M | 22/5/13 | 845924 | | N | N | N | N | **N** | Y | N | N | 9 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 526 | 50 | M | 22/5/13 | 878035 | Y | N | Y | N | N | N | Y | N | N | 8 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 527 | 33 | M | 22/5/13 | 871817 | Y | N | Y | N | N | N | | N | N | 8.8 | NEG | N | N | N | N | YES | YES | | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 528 | 41 | M | 25/5/13 | 872477 | Y | N | y | N | N | N | N | N | N | 11 | neg | N | N | N | Y | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 529 | 75 | M | 25/5/13 | 877879 | N | N | N | N | N | N | N | N | N | 10 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 530 | 65 | M | 27/5/13 | 878137 | Y | N | N | N | N | N | N | N | N | 9 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 531 | 66 | F | 27/5/13 | 869714 | Y | N | N | N | N | N | N | N | N | 8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | | YES | | N |
| 532 | 60 | M | 27/5/13 | 879625 | Y | N | N | N | N | N | N | N | N | 8.8 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 533 | 59 | M | 30/5/13 | 880211 | Y | N | N | N | N | N | N | N | N | 9.8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 534 | 40 | M | 30/5/13 | 879229 | Y | N | N | N | N | N | N | N | N | 10 | NEG | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 535 | 40 | F | 30/5/13 | 878887 | N | N | N | N | N | N | N | N | N | 9 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 536 | 36 | M | 2/6/2013 | 879652 | N | N | N | N | N | N | N | N | N | 8 | NEG | **N** | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | |
| 537 | 32 | M | 2/6/2013 | 881531 | N | N | N | N | N | N | N | N | N | 8.8 | NEG | **N** | N | N | N | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 538 | 48 | M | 2/6/2013 | 809077 | N | N | N | N | N | N | N | N | N | 10 | NEG | **N** | N | N | N | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 539 | 68 | M | 5/6/2013 | 876455 | Y | N | N | N | N | N | N | N | N | 10 | NEG | **N** | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 540 | 23 | F | 5/6/2013 | 881174 | Y | N | N | N | N | N | N | N | N | 9 | NEG | **N** | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 541 | 70 | F | 8/6/2013 | 881285 | Y | N | N | N | N | N | N | N | N | 8 | NEG | **N** | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 542 | 29 | M | 8/6/2013 | 882573 | Y | N | N | N | N | N | N | Y | N | 8.8 | NEG | **N** | N | N | **N** | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 543 | 60 | M | 8/6/2013 | 863605 | Y | N | N | N | N | N | N | Y | N | 9.8 | NEG | **N** | N | N | **N** | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 544 | 23 | M | 12/6/2013 | 865050 | Y | N | N | N | N | Y | N | N | N | 10 | NEG | **N** | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 545 | 43 | M | 12/6/2013 | 883257 | Y | N | N | N | N | Y | N | N | N | 9 | NEG | **N** | N | N | YES | N | N | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N |
| 546 | 50 | M | 12/6/2013 | 883249 | | N | N | N | N | | N | N | N | 8 | NEG | **N** | N | N | | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 547 | 51 | F | 18/6/13 | 882871 | Y | N | N | N | Y | | N | N | N | 8.8 | NEG | **N** | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 548 | 48 | M | 18/6/13 | 884404 | Y | N | N | N | N | Y | N | N | N | 10 | NEG | N | N | N | | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 549 | 34 | F | 18/6/13 | 885074 | Y | N | N | N | N | | N | N | N | 9 | NEG | N | N | N | | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 550 | 28 | F | 21/6/13 | 884183 | YES | N | | N | N | N | N | N | N | 10 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 551 | 30 | M | 21/6/13 | 884717 | YES | N | | N | N | N | N | N | N | 9 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 552 | 50 | M | 21/6/13 | 882979 | N | N | YES | N | N | N | N | N | N | 8 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 553 | 45 | F | 21/6/13 | 880909 | N | N | | N | N | N | N | N | N | 8.8 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 554 | 55 | M | 26/6/13 | 885227 | N | N | YES | N | N | N | N | N | N | 9.8 | NEG | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 555 | 45 | F | 26/6/13 | 886066 | N | N | YES | N | N | N | N | N | N | 10 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 556 | 28 | F | 26/6/13 | 884810 | N | N | | N | N | N | N | N | N | 9 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 557 | 50 | F | 22/6/13 | 886085 | N | N | YES | N | N | N | N | N | N | 8 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 558 | 75 | M | 26/6/13 | 885045 | N | N | YES | N | N | N | N | N | N | 8.8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES | N | N |
| 559 | 82 | M | 26/6/13 | 886485 | N | N | YES | N | N | N | N | N | N | 10 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 560 | 35 | M | 26/6/13 | 886062 | N | N | YES | N | N | N | N | N | N | 9 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES | N | N |

# MASTER CHART

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 561 | 23 | M | 29/6/113 | 885621 | YES | N | YES | Y | N | N | N | Y | N | 10 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 562 | 30 | M | 29/6/13 | 884717 | | N | YES | N | N | N | N | N | N | 9 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 563 | 25 | F | 1/7/2013 | 839414 | YES | N | N | N | N | N | N | Y | N | 8 | POS | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES | N | N |
| 564 | 30 | F | 1/7/2013 | 887281 | YES | N | N | Y | N | N | N | N | N | 8.8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 565 | 40 | F | 1/7/2013 | 888613 | YES | N | N | N | N | N | N | N | N | 9.8 | NEG | N | N | N | N | YES | N | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 566 | 82 | F | 3/7/2013 | 885955 | YES | N | N | N | N | N | N | Y | N | 10 | NEG | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 567 | 72 | M | 3/7/2013 | 890185 | YES | N | N | Y | N | N | N | **N** | N | 9 | NEG | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 568 | 60 | M | 3/7/2013 | 890029 | YES | N | N | N | N | N | N | Y | N | 8 | NEG | N | N | N | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N |
| 569 | 61 | M | 6/7/2013 | 890847 | YES | N | N | N | N | N | N | **N** | N | 8.8 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 570 | 27 | M | 6/7/2013 | 891161 | YES | N | N | Y | N | N | N | **N** | N | 10 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 571 | 63 | M | 6/7/2013 | 891162 | YES | N | N | | N | N | N | Y | N | 9 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 572 | 70 | F | 11/7/2013 | 890751 | YES | N | Y | N | N | Y | N | YES | N | 10 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 573 | 85 | M | 11/7/2013 | 890092 | YES | N | N | N | N | N | N | N | N | 9 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES | N | |
| 574 | 45 | F | 18/7/13 | 884107 | YES | N | Y | N | N | Y | N | N | N | 8 | POS | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 575 | 60 | F | 18/7/13 | 876209 | YES | N | N | N | N | N | N | N | N | 8.8 | NEG | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 576 | 55 | M | 18/7/13 | 886454 | YES | N | Y | N | N | Y | N | N | N | 9.8 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 577 | 18 | M | 24/7/13 | 892760 | | N | N | N | N | | N | N | N | 10 | NEG | N | N | N | N | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 578 | 38 | M | 24/7/13 | 893024 | YES | N | Y | N | N | Y | N | N | N | 9 | NEG | N | N | N | YES | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 579 | 40 | M | 24/7/13 | 893149 | YES | N | N | N | N | N | YES | N | N | 8 | NEG | N | N | N | N | | | YES | | | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 580 | 45 | M | 29/7/13 | 892964 | YES | N | N | Y | N | N | | YESS | N | 8.8 | NEG | N | N | N | N | N | N | N | N | N | | N | N | N | YES | N | N | N | N | N | N | N | N |
| 581 | 25 | M | 29/7/13 | 885911 | YES | N | N | Y | N | N | YES | N | N | 10 | NEG | N | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N |
| 582 | 45 | F | 29/7/13 | 894457 | YES | N | N | Y | N | N | | N | N | 9 | NEG | N | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N |
| 583 | 27 | M | 2/8/2013 | 890844 | Y | N | N | N | N | N | N | N | N | 10 | NEG | N | N | N | N | YES | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 584 | 28 | M | 2/8/2013 | 891785 | | N | N | N | N | N | N | N | N | 9 | NEG | N | N | N | N | YES | N | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 585 | 42 | M | 2/8/2013 | 894308 | Y | N | N | N | N | N | N | N | N | 8 | NEG | N | N | N | N | YES | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 586 | 64 | F | 6/8/2013 | 894050 | Y | N | N | N | N | N | N | N | N | 8.8 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 587 | 70 | M | 6/8/2013 | 893244 | | N | N | N | N | N | N | N | N | 9.8 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 588 | 85 | f | 6/8/2013 | 894722 | Y | N | N | N | N | N | N | N | N | 10 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 589 | 85 | F | 12/8/2013 | 897828 | YES | N | N | N | N | N | N | N | N | 9 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 590 | 30 | M | 12/8/2013 | 896634 | | N | N | N | N | N | N | N | N | 8 | NEG | N<br>N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 591 | 60 | M | 12/8/2013 | 894700 | YES | N | N | N | N | N | N | N | N | 8.8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 592 | 52 | M | 18/8/13 | 893635 | YES | N | N | N | N | N | N | N | N | 10 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | YES |
| 593 | 45 | M | 18/8/13 | 898322 | YES | N | N | N | N | N | N | N | N | 9 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N |
| 594 | 60 | F | 20/8/13 | 898624 | YES | N | N | N | N | N | N | N | N | 9.8 | NEG | N | N | N | N | N | N | N | N | N | N | N | N | N | YES | N | N | N | N | N | N | N | N |
| 595 | 40 | M | 20/8/13 | 899507 | YES | N | N | N | N | N | N | N | N | 10 | NEG | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 596 | 18 | M | 22/8/13 | 899859 | YES | N | N | N | N | N | N | N | N | 9 | NEG | N | N | N | N | YES | N | YES | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 597 | 33 | M | 25/8/13 | 900468 | Y | N | N | N | N | N | N | N | N | 8 | NEG | N | N | N | N | YES | N | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 598 | 64 | M | 25/8/13 | 899079 | Y | N | N | N | N | N | N | N | N | 8.8 | NEG | N | N | N | N | | YES | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| 599 | 50 | F | 31/8/13 | 892384 | Y | N | N | N | N | N | N | N | N | 10 | NEG | N | N | N | N | | N | N | N | N | YES | N | N | N | N | N | N | N | N | N | N | N | N |
| 600 | 88 | M | 31/8/13 | 892310 | N | N | N | N | N | N | N | N | N | 9 | NEG | N | N | N | YES | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |