Internship Training at National Board of Examinations

Bangalore

By

Dipmala Saha

PGDHM 2012-2014

International Institute of Health Management Research
New Delhi

Internship Training

At

National Board of Examinations

Bangalore

Project Title

'To Study On Relevance Of DNB (Diplomate of National Board) Theses Topics in the Recent Medical Practices in General Surgery Chosen by The DNB Trainees at National Board Of Examinations.'

By

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Under the guidance of

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Post Graduate Diploma in Hospital and Health Management

2012-2014

International Institute of Health Management Research New Delhi

CERTIFICATE OF COMPLETION OF INTERNSHIP/DISSERTATION FOR THE DURATION OF AT LEAST THREE MONTHS FROM THE ORGANISATION.

The certificate is awarded to

Ms. Dipmala Saha

In recognition of having successfully completed her Internship in the department of

Thesis Section

and has successfully completed her Project on

'To Study on Relevance of DNB (Diplomate of National Board) Thesis Topics in the Recent Medical Practices in General Surgery Chosen by the DNB Trainees at National Board of Examinations.'

3rd February – 30th April, 2014

National Board of Examinations (NBE)

She comes across as a committed, sincere & diligent person who has a strong drive & zeal for learning

We wish her all the best for future endeavors

MR. B.N. KHATRI

Deputy Director (Admin)

National Board of Examinations, New Delhi

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TO WHOM SO EVER MAY CONCERN

This is to certify that **Ms Dipmala Saha** student of Post Graduate Diploma in Hospital and Health Management (PGDHM) from International Institute of Health Management Research, New Delhi has undergone dissertation at **National Board of Examinations, Bangalore** from 3rd February – 30th April 2014.

The Candidate has successfully carried out the study designated to him during dissertation and his approach to the study has been sincere, scientific and analytical.

The dissertation is in fulfilment of the course requirements.

I wish him success in his future endeavours.

Dr. A.K. Aggarwal

Dean

IIHMR, New Delhi.

Certificate of Approval

The following dissertation titled "**Establishing Quality Management System in Sarvodaya Multispeciality and Cancer Hospital, Hisar Haryana"** is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a pre-requisite for the award of **Post- Graduate Diploma in Health and Hospital Management** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

Dissertation Examination Committee for evaluation of dissertation.

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Certificate from Dissertation Advisory Committee

This is to certify that **Ms. Dipmala Saha**, a participant of the **Post Graduate Diploma in Health and Hospital Management**, has worked under our guidance and supervision. She is submitting this dissertation titled, **To Study on Relevance Of DNB (Diplomate of National Board) Thesis Topics in the Recent Medical Practices in General Surgery Chosen by the DNB Trainees at National Board of Examinations** in partial fulfillment of the requirements for the award of the **Post-Graduate Diploma in Health and Hospital Management.**

This dissertation has the requisite standard and to the best of our knowledge no part of it has been reproduced from any other dissertation, monograph, report or book.

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CERTIFICATE BY SCHOLAR

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and submitted by (Name) ……..**Ms. Dipmala Saha**……

Enrollment No. ……**PG/12/028**…… under the supervision of

……**Dr. Ashok k Aggarwal**…… for award of Postgraduate Diploma in Hospital and Health Management of the Institute carried out during the period from ……**3rd February**…….. to ……**30th May 2014**…….. embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

Dipmala Saha
Signature

FEEDBACK FORM

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Dissertation Organisation: National Board of Examination, Bangalore

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Deliverables: Conducted a Study on "Relevance of DNB Thesis topics in the Record medical Practices in General Surgery chosen by DNB trainees at NBE"

Strengths: Committed towards her study area and is sincere and hardworking.

Suggestions for Improvement: Good learner Needs to gain more knowledge of NBE working area.

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Through this project I came to know the Relevance of DNB (Diplomate of National Board) Thesis Topics in the Recent Medical Practices in General Surgery Chosen by the DNB Trainees at 'National Board of Examinations.'

Dipmala Saha

IIHMR, New Delhi, Batch "E"

INTERNSHIP REPORT

ORGANIZATION PROFILE

National Board of Examinations (NBE) was established in 1975 by the Government of India with the prime objective of improving the quality of Medical Education by establishing high and uniform standards of postgraduate examinations in modern medicine on All India basis.

NBE conducts post graduate and post-doctoral examinations in approved disciplines leading to the award of Diplomate of National Board (DNB). Medical Council of India has laid down standards for post-graduate examinations conducted by various medical colleges and affiliated to concerned universities, yet the levels of proficiency and standards of evaluation vary considerably in these institutions, leading to lack of uniform and acceptable benchmarks for assessment and qualification.

The setting up of a National Body to conduct post graduate medical examination and training has provided common standards and mechanism of evaluation of minimum level of desired knowledge and competencies and fulfillment of the objectives for which postgraduate courses has been started in medical institutions. Moreover, intra country and international comparison is facilitated with the availability of commonly accepted evaluation mechanism like the DNB. The Diplomate National Board final examinations are conducted on all India basis on standardized format and multiple assessment tools are used for assessing the candidates knowledge skills and competencies.

RECOGNITION OF DNB QUALIFICATION

The nomenclature of the qualification awarded by the National Board of Examinations is "Diplomate of National Board". The recognized qualifications awarded by the Board in various Broad and Super specialties as approved by the Government of India and included in the First Schedule of IMC Act 1956.

As per the Indian Medical Council Act, 1956; the authority to recognize medical qualification(s) and determine their equivalence with other qualifications rests with the Ministry of Health & Family Welfare, Government of India.

The Diplomate qualification awarded by the National Board of Examinations are equated with the postgraduate and post doctorate degrees awarded by other Indian Universities for all purposes including appointment to teaching posts as lecturer/Assistant Professor

by the Government of India, Ministry of Health and Family Welfare; vide their notifications issued from time to time.

The holders of Board's qualification awarded after an examination i.e. DNB are eligible to be considered for specialist post / faculty in any hospital including training / teaching institute on a teaching post as faculty member.

Goal:

The candidate after 3 years of DNB training should acquire the competencies so that he/she is able to carry out the job functions of a Senior Candidates with Junior Consultant in the specialty.

Functions of the Management of NBE:

- To describe the evolution & management concepts over the years and characteristics of management
- To describe the importance of planning in management and to explain the mechanics of planning and the process of decision-making.
- To describe the organization of an office in a health unit/hospital by explaining the principles & procedures of official communication
- To familiarize with computers
- To explain the meaning and purpose of communication. To explain the process of organizational communication and ways to make it effective
- To emphasize the importance of human resource in a hospital and to know in detail about the function of personnel management
- To describe the behavior of people in their work environment and its relation in team building for achieving organizational goals
- To describe the issues & scope of financial management & its utility as an indispensable part of administration & quality control.
- To help, learn the scientific methods, materials and equipment planning, procuring, storing and dispensing including maintenance .
- To provide a history and development of medical services in India over the years .
- To consider various planning and operational aspects like importance, function, local area and space, organization staffing pattern, utilization and work load, record, equipments and supplied requirements and standards and evaluation of each services.

LIST OF SPECIALTIES APPROVED FOR DNB- BROAD SPECIALTIES COURSES:

Course Duration: Three Years (Post MBBS)

- Anaesthesiology
- Anatomy
- Biochemistry
- Dermatology & Venereology
- Field Epidemiology
- Forensic Medicine
- General Medicine
- General Surgery
- Health Administration including Hospital Administration
- Immunohematology & Transfusion Medicine
- Maternal and Child Health
- Microbiology
- Nuclear Medicine
- Obstetrics & Gynaecology
- Ophthalmology
- Orthopaedic Surgery
- Otorhinolaryngology (ENT)
- Paediatrics
- Pathology
- Pharmacology
- Physical Medicine and Rehabilitation
- Physiology
- Psychiatry
- Radio Diagnosis
- Radio Therapy
- Respiratory Diseases
- Social and Preventive Medicine

LIST F SPECIALTIES APPROVED FOR DNB- SUPER SPECIALTIES COURSES:

Course Duration: Three Years (Post MD/MS/DNB) & Six Years (Post MBBS)

- Cardio Thoracic Surgery
- Cardio Thoracic Surgery (Direct 6 Years Course)
- Cardiology
- Endocrinology
- Gastroenterology
- Genito Urinary Surgery (Urology)
- Medical Oncology
- Neonatology
- Nephrology
- Neuro Surgery
- Neuro Surgery (Direct 6 Years Course)
- Neurology
- Paediatric Surgery
- Paediatric Surgery (Direct 6 Years Course)
- Peripheral Vascular Surgery
- Plastic Surgery

- Plastic Surgery (Direct 6 Years Course)
- Rheumatology
- Surgical Gastroenterology
- Surgical Oncology
- Hematology

TASK PERFORMED AT THE ORGANIZATION

- National Board of Examination (NBE) conducts Diplomate of National Board (DNB) examinations and Accreditations of Institutions for DNB programmes. NBE conducts Common Entrance Test (CET) exam for admission to DNB primary and secondary courses as well as Fellowship programmes by Counselling.

- It also conducts DNB final exams twice in a year in June and December. The Screening tests for Foreign Medical Graduates twice in a year are being conducted by NBE.
- NBE conducts All India NEET (National Eligibility Entrance Test). DNB and Fellowship exams are conducted in 47 specialties / sub-specialties. The NBE conducts Practical examinations twice in a year in almost 300 centers across the country.

- The process of Onsite-assessment of theses work is performed at the same Organization. The overall functional task of NBE related to the completion of thesis work in a Medical Institute/Hospital, assessment and finally submission by the candidates has been described as follows-

- DNB candidates are posted through CET at various NBE accredited hospitals for 2/3/6 years of training.
- The hospital appoints one guide and one co-guide to supervise the training and theses work of DNB candidates.
- Within two months the DNB candidates submits the synopsis of thesis at NBE office.
- Synopsis of the theses are evaluated at NBE office and its acceptance/otherwise is communicated to the candidate/guide of the hospital.
- Candidates prepare the thesis.
- The progress of thesis writing is evaluated by DNB appointed local appraisers on an yearly basis.
- The candidates submit the thesis to NBE office for evaluation before six months of his/her taking the DNB final exam.
- The process of theses submission ends.
- The process of assessment/evaluation of theses work starts at NBE.
- The details of thesis are being received at the office.
- Coding/data entry is being done and the draft are suggested and send to the Account department of NBE regarding the fees for thesis submission.
- The deficiencies found while coding/data entry is informed to the candidate for rectification.

- The theses are slotted as per the specialty wise.
- The details of thesis data are sent to the combetent authority for appointment of Assessors for the assessment of theses.
- Sufficient numbers of assessors are suggested by combetent authority for onsite-assessment of theses.
- Formal communication is sent to the assessors to carryout assignment during the prescribed time frame.
- Assessors come to the NBE office for onsite-assessment and submit the status of thesis assessment report of the candidate.
- Report is sent for further action and the Remuneration bill for the assessor is processed for payment.
- The outcome of thesis assessment (Thesis Acceptance/Modification suggested) is communicated to the candidate by NBE.
- For modification, candidates are given a reasonable time for re-submission.
- The modified theses are sent to the same assessor for re-evaluation.
- Acceptance of thesis is being communicated formally to the candidates by the NBE office.
- In case of rejection second time, the thesis is presented before the theses evaluation committee of the NBE for the final decision/suggestion.
- The overall process ends.

- NBE recently started Display of Answer sheets to the candidates on specific request. It regularly conducts Continued Medical Education (CME) programs for the benefit of ongoing DNB students and also conducts workshops on thesis writing methodologies.

- Thesis Protocol submitted by the candidates is assessed to reduce the modifications while submitting the original thesis.
- NBE also conducts yearly Appraisal of the candidates as well as the Institutions to assess the ongoing training program with regard to the curriculum of the Board and to offer suggestions.

- **The Schedule for Examinations to be held in 2014 -**

Sl. No.	Month	Examinations
1	January	Centralized Merit Based Counseling for admission to various DNB courses
2	February-March	Fellowship Entrance Examination and Counseling
3	March	DNB Practical
4	April-May	Fellowship Entrance
5	June	DNB Final (Theory) DNB CET (Centralized Entrance Test) DNB Post Diploma CET FMGE Screening Test
6	July-August	Centralized Merit Based Counseling for admission to various DNB courses
7	September- October	DNB Practical
8	November	DNB CET DNB CET Super Specialty DNB Post Diploma CET FMGE Screening Test
9	December	DNB Final (Theory)

KEY LEARNINGS

At the end of the Internship, the following Key Learning have been made-

i. General Administration
ii. Attending to enquiries from the candidates.
iii. Maintenance of petty cash account.
iv. Maintenance of various Registers.
v. Process of onsite thesis assessment.
vi. Process of Display of Inspection of Answer sheets.

DISSERTATION REPORT

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INTRODUCTION

Patients need good skilled doctors to alleviate their sufferings by applying the best **Medical Practices** in the modern health care scenario. Good doctors make the care of their patients their first concern: they are competent, keep their knowledge and skills up-to-date, establish and maintain good relationships with patients and colleagues with honest and trustworthy and act with integrity.

Good doctors work in partnership with patients and respect their rights to privacy and dignity. They treat each patient as an individual. They do their best to make sure all patient as an individual. They do their best to make sure all patients receive best care and treatment that will support them to live as well as possible, whatever their illness or disability.

Medical /Surgical Practice in India is mostly managed by the central and state governments and is totally government financed, offering free medical aid. However, with the economic growth and affluence of the middle-class population in urban areas, more and more hospitals, nursing homes, and clinics managed by the private sector are arising in cities and towns. Privately owned hospitals are built and managed by large industrial houses and trusts. It is essential, according to government directives, for these hospitals to have certain numbers of general beds that will provide for the economically weaker sections of the population. Medical insurance is popular amongst the urban population; surgical care standards are uniformly high in the larger teaching institutions and hospitals run by the private sector in major cities in India, in which super specialty surgical care that meets worldwide standards is available in addition to general surgical care. These hospitals are manned by surgeons holding master's degrees in general surgery, super specialties, and subspecialties. In the hospitals and dispensaries in rural areas, only basic surgical facilities are available; for major surgical procedures, the patients are referred to the closest urban hospitals. Therefore, the government of India is placing more and more emphasis on building hospitals that offer better surgical facilities away from the cities and towns. A diploma course in surgery is run by the National Board of Surgery, and these diplomates are encouraged to practice more in rural areas and small hospitals. Economic constraints and the population explosion are the biggest hurdles to progress in surgical care, teaching, and research activities. With the advancement in education and growth of the economy, more and more multinationals are walking into the field of medical care, which is proving to be a great boon and providing a rapid increase in the health care expansion in this country. The World Health Organization and the World Bank are providing considerable aid for disease prevention, health care provision, and research activities.

General surgery is a surgical specialty that focuses on abdominal contents including esophagus, stomach, small bowel, colon, liver,pancreas, gallbladder and bile ducts, and often the thyroid gland (depending on the availability of head and neck surgery specialists). They also deal with diseases involving the skin, breast, soft tissue, and hernias. The main scope is the problems which in general, cannot be classified into the special surgical fields. In medical practice, most frequent focus is on the abdominal organs (esophagus, stomach, colon, liver, gallbladder and bile ducts and often the thyroid gland) and

hernias, other issues, however shared with other disciplines may be surgical diseases of the thyroid glands, mammary glands, varicose veins, and of course certain types of injuries.

In my study the Project Title is- **"Relevance of DNB Theses topics in the recent Medical Practices in General Surgery chosen by the candidates at National Board of Examinations."** The study covers with some of the Relevant theses topics in the specialty of **General Surgery** such as- 'Acute Appendicitis', ' Ventral Hernia Repair', 'Gall stone disease', 'Inguinal Hernias', 'Acute Pancreatitis', 'Laparoscopic to Open Cholecystectomy', 'Uncomplicated Amoebic Liver Abscess', etc.

Appendicitis is one of the most common acute surgical diseases. The lifetime rate of **Appendicectomy** is 12% for men and 25% for women, with approximately 7% of all people undergoing appendicectomy for acute appendicitis during their lifetime. Over the 10-year period from 1987-1997, the overall appendicectomy rate decreased in parallel with a decrease in incidental appendicectomy. However, the rate of appendicectomy for appendicitis has remained constant at 10 per 10,000 patients per year. Appendicitis is most frequently seen in patients in their second through fourth decades of life, with a mean age of 31.3 years and a median age of 22 years.

Ventral Hernia is defined as protrusion through the anterior abdominal wall defect, which are commonly encountered in surgical practice. The estimated incidence of ventral hernia is 15-20%. They are either congenital or acquired Umbilical and Epigastric hernias constitutes 10% of all hernias. Incisional hernias are twice as common in women as in men. In adults, more than 80% of ventral hernias result from previous surgery hence the term 'Incisional Hernias'. They have been reported to occur after 0-26% of abdominal procedures. Ventral hernias may be asymptomatic or cause a considerable degree of discomfort, and generally enlarge over time. Primary Ventral hernias are also termed as "true" Ventral hernias. **Epigastric** hernias are located in the midline between the xiphoid process and the umbilicus. They are generally small, may be multiple and at elective repair. **Umbilical** hernias develop at the umbilical ring and may be present at birth or develop gradually during the life of the individual. These type of hernias are present in approximately 10% of all newborns and are more common in premature infants.

Laparoscopic Cholecystectomy was first performed by Dr. Med Erich Muhe of Boblingen Germany on September 12 1985. A Cholecystectomy is the surgical removal of gallbladder. The two basic types of cholecystectomy are Open and Laparoscopic approach. It is estimated that laparoscopic procedure is currently used for more than 90% of cases. This procedure has rapidly become the procedure of choice for routine gallbladder removal and has become the most common major abdominal procedure performed in Western countries.

Diabetes Mellitus is a major public health issue all over the world. It has been estimated that in India, the number of diabetics will rise to 57 million by 2025. Diabetic foot ulcers are estimated to affect 15% of all diabetics during their lifetime and precede almost 85% of all foot amputations. A diabetic foot ulcer is an umbreela term for foot problems in patients with diabetes mellitus. The two important etiologies for diabetic foot are neuropathy and

ischaemia, which make the foot more prone to ulceration and infection. The diabetic foot ulcers are graded by Wagner's classification or depth-ischaemia classification.

The **Anorectal malformation** is a very common congenital defect, which has the incidence of 3-5 per 10000 live births, and can present in myriad ways. Hence, it requires an individualized approach in managing such patients. The disease is not limited to any specific population based on either ethnicity and culture or definite maternal or foetal risk factors.

REVIEW OF LITERATURE

Acute abdomen is the most common surgical emergency and ***'Acute Appendicitis'*** is commonest of them all. The first recorded successful appendicectomy was in **1735** when French surgeon ***Claudius Aymand*** described the presence of a perforated appendix within the hernia sac of an 11-year-old boy who had undergone successful appendicectomy. The operation was performed on December 6, 1735, at St. George's Hospital in London. The organ was perforated by a pin the boy had apparently swallowed. The patient, Hanvil Andersen, made a spectacular recovery and was discharged a month later. The greatest contributor to the advancement in the treatment of appendicitis was ***Charles McBurney***. In **1889**, he published his landmark paper in the New York State Medical Journal describing the indications for early laparotomy for the treatment of appendicitis. In **1981**, ***Kurt Semm***, from the Universities Frauenklinik, Kiel, Germany, performed the first `laparoscopic appendicectomy, the president of the German Surgical Society wrote to the Board of Directors of the German Gynecological Society suggesting suspension of Semm from medical practice. Subsequently, Semm submitted a paper on ***'Laparoscopic Appendicectomy'*** to the **'American Journal of Obstetrics and Gynecology'**, at first rejected as unacceptable for publication on the grounds that the technique reported on was 'unethical', but finally published in the journal 'Endoscopy.'

'Ventral Hernias' are the second most common type of abdominal hernias. The greatest contribution to hernia surgery was by Italian surgeon ***EdoardoBassini.*** He first performed the inguinal hernia repair using interrupted silk sutures in 1884 and reported it in **1887**. He reported 206 operations with no operative mortality. **Bassini** reported an almost 100% followup of his patients for 5 years with 11 wound infections and only 8 recurrences.Incisional and primary Ventral Hernia are frequently encountered and sometimes frustrating problem for the general surgeon. Since ***Gredy's*** first description of incisional hernia repair in **1836,** the repair of incisional hernia has undergone numerous modifications. A variety of surgical techniques have been described in an attempt to meet these goals. Relaxing incisions have been used to decrease suture line tension for primary hernia repairs. Other surgical techniques include keel procedure, internal retention sutures, and muscle rotation flaps. The use of prosthetic mesh has resulted in a lower recurrence rate when compared to primary repair. The laparoscopic approach to ventral hernia can minimize the disadvantages of open herniorraphy without compromising the ability to implement a tension

free mesh repair. ***Le blanc***first reported a laparoscopic incisional hernia repair and over the time there has been an increase in both the volume and complexity of incisional hernia repairs approached laparoscopically. Currently there are three important techniques for incisional hernia.

- Open Suture Repair
- Open Mesh Repair
- Laparoscopic Mesh Repair

In **2001**, ***Clack Jl et al***reviewed Ventral Incisional Hernia(VIH) recurrence in 31 patients operated between 1993-1996 and concluded that patients with recurrent VIH frequently recur despite use of mesh, avoidance of contamination and consistent technique. No difference in Body Mass Index was apparent in those who recurred. Cigarette smoking and occupational lifting may be an important risk factor for recurrent VIH.In **2002, *Cassar***et al studied surgical treatment of incisional hernia and concluded that open suture repair for incisional hernia carries unacceptable high recurrence rate.In **2003**, ***De vriesRrilingh*** et al retrospectively studied as compared to other techniques- repair of large midline incisional hernia with polypropylene mesh by inlay, onlay, underlay techniques. Polypropylene mesh was implanted by onlay in 13 patients, inlay in 23 patients, and underlay in 17 patients. The onlay technique has significantly more complications as compared to both other technique.

Constipationhas afflicted mankind since times immemorial. It was once called the **'Disease of all diseases'.**As noted above the symptom of constipation may represent a disease process ranging from the side effect of a commonly used drug to carcinoma of colon. The oldest complete 'book' in existence is an Egyptian pharmaceutical papyrus of the **16th century BC** that offers as a basic explanation of disease the notion of poisoning of the body by material released from decomposing waste in the intestines.From the late **1700s** onward, moreover, European and American physicians were convinced that constipation was becoming ever more common because of changes in diet, exercise levels, and pace of life associated with urbanization.In the literature many terms have been used to describe the constipation that is associated with ano-rectal dysfunction including 'anismus', 'pelvic floor dyssynergia', 'pelvic outlet obstruction', **'obstructive defecation (ODS)'**. Preston and Jones first described paradoxical and canal contraction during attempted defecation and coined the term anismus.Outlet obstruction implies that there is blockage to defecation but it includes functional and structural blockage including neoplasia, rectal prolapse etc. ODS may also

include functional disorders like mucosal and rectal prolapse. ***Rao*** et al coined the term dyssynergic defecation citing dyssynergia between various pelvic and anal muscles leading to faulty evacuation and hence constipation.

Reports on **Gallstone disease**are mentioned as early as 2000 BC, when the ***Babylonians*** first described the bile duct system. Gallstones were found in a Mummy from the 21st Dynasty, 1085-945 BC. The Italian physician ***Gentile de Foligno*** was the first to describe gallstones in man in the beginning of the 14th century, while biliary colic was first described in **1661** by ***Thomas Bartholinus***, who ascribed the pain to stone passage through the Common Bile Duct(CBD). The first chemical analysis of the composition of gallstones was made in **1789** by ***Fourcroy.***Surgical treatment was first introduced in **1867** by ***John Bobbs*** in the United States(US), who performed a cholecystectomy, i.e. the removal of the gallstones without removing the gallbladder.***Carl Langenbuch*** in Berlin believed that this was not a curative operation since stones would recur. He introduced **Cholecystectomy,** i.e. removal of the gallbladder with the stones in **1882.**The first **laparoscopic cholecystectomy(LC)** was performed by ***Eric Muhe*** in **1986.** This was initially not noticed and it was not until the French surgeon, ***Philippe Mouret*** performed LC that it started to be widely practiced. Three years later, it was introduced in Sweden and only a few years after that it became the "Gold Standard" for elective treatment of symptomatic gallstone disease. As an alternative to LC, open cholecystectomy with minimal incision i.e minilaparotomy cholecystectomy(MC), was introduced in the late **1980s**. This method has not gained the same general acceptance as LC. In the late 1890s, gallstones had been detected on plain X-rays. However, this detection demanded that the stones should be calcified, which only occurs in 10-15% of all cholesterol gallstones. ***Graham and Cole*** introduced oral cholecystography in **1924.** This form of detection of gallstones became the **'Gold standard'** until the beginning of the **1970s** when ultrasonography (USG) replaced it.

Evolution in the treatment of **Inguinal Hernias**has paralleled technologic advances in the field of surgery. The earliest reports of abdominal wall hernias can be traced back to ***Hammurabi of Babylon*** and the ***Egyptian papyrus*** as early as **1500 BC**. Earlier management of inguinal hernias involved a conservative approach using trusses "for closing the gate"(i.e. external inguinal ring), invented by ***Guy de Chauliac,*** the famous 14th century French surgeon.The first evidence of operative repair of a groin hernia was mentioned in the literature of antiquity, as by **Celcus** during the first century AD. The original hernia repairs involved wide operative exposures, emphasized mass ligation of the hernia sac, cord and

testis distal to the external ring and closure of the hernia orifice using inflammation by cauterization with a red-hot iron. These primitive repairs were plagued with high recurrence rates as well as high mortality of the procedure.In **1881, *Lucas-Championniere*** was the first to point out the importance of the high ligation of the hernia sac at the inguinal ring after splitting the abdominal aponeurosis. With such reinforcement of the posterior wall of the inguinal canal, the basis was laid for the most important repair procedure for surgery of inguinal hernias, which is still used today. The major breakthrough in the inguinal hernia repair came in **1889** with the anatomical dissection and reconstruction of the inguinal canal by ***Eduardo Bassini***, an Italian surgeon, credited as the 'father of modern herniorrhaphy.' He made an importantobservation that the successful repair of groin hernias depended on the repair of the underlying abdominal wall defect rather than just manipulation of the hernia sac.To avoid undue tension of repair of posterior wall of inguinal hernia by pure tissue repair***(Bassini's,Coopers,Shouldice)***many surgeons proposed strengthening of posterior wall of inguinal canal or the abdominal wall by biological material or natural tissue or metal sheet or synthetic material. According to ***McVay*** in **1978**, inguinal hernia repair is the most frequent operation in general surgery. Since Bassini introduced his method for radical treatment of inguinal hernia opening the modern era of herniorrhaphy.

Herophulus of Chalkasdon gave the first description of **Pancreas** around the year **300 BC**. ***Rufhus***named this organ around the year **100 AD**. ***Ambross Pare (French Surgeon)*** provided an early description of **Acute Pancreatitis** and **Chronic Pancreatitis** in **1579.** In **1889,*Reginald Fitz*** divided acute pancreatitis into hemorrhagic, supportive types.The German anatomist ***Johann Georg Wirsung*** discovered the main pancreatic duct in **1642** in Padua, ItalyIn a remarkable paper, he described 10, 22 and 15 patients respectively, with these conditions. According to***Lord Moynihan*, 1925**described **Acute Pancreatitis** as the most terrible of all the calamities that occur in connection with the abdominal viscera..***Reqnier de graff*** first derived a method of collecting pancreatic juice by inserting a duck's quill into the pancreatic duct of a dog.***Reginald Huber Fitz*(1843-1913)**, an American pathologist and professor at Harvard Medical School, who had studies in Berlin under ***Rudolf Virchow***, presented the first systematic analysis of acute pancreatitis in **1889** with the title- **"Acute pancreatitis:** a consideration of pancreatic haemorrhage, hemorrhagic pancreatitis, and of disseminated fat necrosis", with detailed clinical characteristics of fifty-three patients. In **1901**, ***Opei***studied the relationship between the gallstone and acute pancreatitis and pathogenic mechanism of gallstone induced pancreatitis. He proposed that a gallstone lodge

at ampulla might occlude both common bile duct and pancreatic duct thus forming a common channel, thus allowing reflux a bile into pancreas and causing pancreatitis.

In **1994**, a study by ***Carmody E,Arenson AM,Hanna S*** found preoperative ultrasonography not very useful in predicting operative difficulties in **Laparoscopic Cholecystectomy.** It was titled, "Failed or difficult laparoscopic cholecystectomy: Can preoperative ultrasonography identify potential problems? Fifty patients underwent detailed preoperative ultrasound examinations. The preoperative ultrasound studies in 5 of these patients demonstrated evidence of cholecystitis and cholelithiasis. Published in **1994**, "Factors determining conversion to laparotomy in patients undergoing **Laparoscopic Cholecystectomy"** was a study done by ***Fried GM, Barkun JS, Sigman HH, Joseph L***, to predict conversion to **Open Cholecystectomy (OC)**. Conversion to OC was required in 90 of 1,676(5.4%) patients. A study done by ***Sanabria JR, Gallinger S, Strasberg SM*** entitled "Risk factors in elective laparoscopic cholecystectomy for conversion to open cholecystectomy" was published in the year **1994.**

Amoebic Liver Abscess has been defined as liver suppuration caused by **'EntamoebaHistolytica'.** The first mention of blood and mucus diarrhea is found in the Sanskrit document Bhrigu-samhita, dated 3000 BC. The association of ball like abdominal masses with this condition has also been recorded and is thought to be indicative of co-existing hepatic abscess. The disease was described in association with blood and mucous diarrhoeal stools in the fifth century BC by Hippocrates and other practitioners. ***Lesch*** found motile amoeba in mucous clots of patient's faeces and showed at autopsy that the terminal ileum and colon had submucosal invasion by amoeba. The detailed study of ***Councilman*** and ***LaFleur*** in **1891,** established the pathogenic role role of amoeba and coined the terms **'Amoebic Dysentery** and **Amoebic Liver Abscess.'*Schaudin***in **1903** named the pathogenic species **'EntamoebaHistolytica'.**

The above mentioned literatures are some of the relevant theses topics in the recent Medical Practices in **General Surgery** that have been covered by the **DNB** candidates in the modern health care scenario.

OBJECTIVE

1. To Study on Relevance of DNB (Diplomate of National Board) Theses Topics in the Recent Medical Practices in General Surgery chosen by the DNB Trainees at National Board of Examinations.

2. To Know the Process of Onsite-Assessment of Thesis submitted by the DNB candidates.

METHODOLOGY

STUDY DESIGN: Qualitative and Quantitative Study

STUDY AREA: Thesis Section in Regional Office at National Board of Examination, Bangalore

STUDY POPULATION: 40 theses carried out by the DNB candidates in '**General Surgery'**

SAMPLE SIZE: 40

SAMPLING TECHNIQUE: Data of 2013 in General Surgery (Randomly)

TOOLS: - Direct Observation through the theses topics and reviewed the literature of the several relevant topics to identify the magnitude of the problem, application of old operative procedures and new procedures, Advantages & Disadvantages against the Traditional Procedure.

Direct interaction with the NBE staffs.

DATA ANALYSIS: MS Excel

REFERENCE PERIOD: 3rd February to 30th April, 2014

PRIMARY DATA: the two main methods by which primary data is collected –

- Direct Interaction with the NBE staffs
- Direct Observation through 39 theses topics in General Surgery

SECONDARY DATA: Internet, Assessment format of DNB, NBE hand booklet.

METHOD: 1. General Surgery theses were checked to get information on Prevalence/Magnitude of the problem, Duration of Existence of the Procedure, Advantages & Disadvantages against the Traditional Procedure.

2. NBE format for Assessment of DNB theses was consulted for criteria on which the assessor has based the credibility of the thesis, whether the thesis topic and overall thesis work is Highly Relevant, Relevant or Less Relevant.

RESULTS

When the theses are analyzed for Prevalence/Magnitude of the Problem, Application of Old Operative Procedure and New Operative Procedure, Advantages & Disadvantages against the Traditional Procedure, the following findings were noted-

Sl. No	Title of the Theses	Magnitude of the Problem focused	Technique/ Procedure Used	Application of Old Operative Procedure and New Operative Procedure	Remarks by Assessors
1	Evaluation Of Abdominal Wound Closure Using Continuous Versus Interrupted Sutures In Patients Of Perforation Peritonitis	Perforation Peritonitis	Continuous Sutures & Interrupted Sutures	Continuous Sutures- **Traditional** Interrupted Sutures- **New**	Satisfactory
2	Comparative Study Of Various Scoring Systems In Assessing The Severity Of Acute Pancreatitis	Acute Pancreatitis	Various Scoring Systems	CT/MRI- **Traditional** Scoring Systems- **New**	Satisfactory
3	To Compare Open 'Inlay' Versus 'Onlay' Meshplasty In Influencing The Final Outcome In Ventral Hernia Repair.	Ventral Hernia Repair.	Open 'Inlay' Meshplasty & 'Onlay' Meshplasty	Open 'Inlay' Meshplasty- **Traditional** 'Onlay' Meshplasty- **New**	Worth Publishing
4	Comparision Of Functional Outcome Of Open And Laparoscopic Appendicectomy With Use Of CT Scan To Allocate Patients.	Appendicectomy	Open And Laparoscopic Appendicectomy	Open Appendicectomy- **Traditional** Laparoscopic Appendicectomy- **New**	Satisfactory
5	A Comparitive Study Of Post Operative Results Of Stapled Haemorrhoidopexy And Open Haemorrhoidectomy	Post Operative Results Of Stapled Haemorrhoidopexy And Open Haemorrhoidectomy	Stapled Haemorrhoidopexy & Open Haemorrhoidectomy	Open Haemorrhoidectomy- **Traditional** Stapled Haemorrhoidopexy- **New**	Satisfactory
6	Study Of Intravenous Dexamethasone In Laparoscopic Cholecystectomy In Reducing Post Operative Nausea, Vomiting And Pain	Study Of Intravenous Dexamethasone In Laparoscopic Cholecystectomy	Intravenous Dexamethasone	Medication Treatment	Good Effort

7	Evaluation Of Combined Use Of Modified Alvarado Score And Ultrasonography In The Diagnosis Of Acute Appendicitis	Acute Appendicitis	Modified Alvarado Score And Ultrasonography	Diagnostic Treatment	Worth Publishing
8	To Compare The Use Of Electrosurgery And Conventional Scalpel In Making An Abdominal Incision	Abdominal Incision	Electrosurgery & Conventional Scalpel	Conventional Scalpel- **Traditional** Electrosurgery- **New**	Satisfactory
9	To Assess The Expression Of Her-2/Neu In Transitional Cell Carcinoma Of Urinary Bladder	Transitional Cell Carcinoma Of Urinary Bladder	Her-2/Neu	Medication Treatment	Satisfactory
10	Management Of Uteric Calculi -A Clinical Study	Uteric Calculi	A Clinical Study	No Procedure	Satisfactory
11	Accurate Diagnosis Of Acute Appendicitis With Reference To The Clinical Examination, Role Of Wbc Count, C-Reactive Protien (Crp), Usg & Alvarado Score	Acute Appendicitis	Diagnostic Procedure	Diagnostic Procedure	Worth Publishing
12	A Prospective Study For Correlation Of Preoperative Ultrasonographic And Intraoperative Findings With An Emphasis On Predicting Final Outcome In Gallstone Disease	Gallstone Disease	Laparoscopic Cholecystectomy with Pre-operative USG	Cholecystectomy- **Traditional** Laparoscopic Cholecystectomy with Pre-operative USG- **New**	Good Effort
13	Comparision Of Laproscopic Appendicectomy Versus Open Appendicectomy In The Management Of Acute Appendicitis	Acute Appendicitis	Laproscopic Appendicectomy & Open Appendicectomy	Open Appendicectomy- **Traditional** Laproscopic Appendicectomy- **New**	Worth Publishing
14	Assessment Of Sentinel Lymph Node Mapping Using Methylene Blue Dye In Early Breast Cancer With Clinically Negative Axilla	Early Breast Cancer	Sentinel Lymph Node Mapping Using Methylene Blue Dye	Diagnostic Procedure	Satisfactory
15	Laparoscopic Vs Open Ventral Hernia Repair - A Comparitive Analysis	Ventral Hernia Repair	Laparoscopic & Open Ventral Hernia Repair	Open Ventral Hernia Repair- **Traditional** Laparoscopic- **New**	Worth Publishing
16	Compartive Study Of Vaseline Gauze Vs Collagen Dressing In Management Of Splitskin Grafting Of Donor Site	Splitskin Grafting Of Donor Site	Vaseline Gauze & Collagen Dressing	Medication Treatment	Satisfactory
17	To Study Co-Relation Between Ultrasonographic Findings With Operative And Histopathological Findings In Cases Of Gall Stone Disease	Gall Stone Disease	Diagnostic Procedure	Diagnostic Procedure	Good Effort

18	To Evaluate The Clinical And Bacteriological Course Of Infection In Diabetic Foot Ulcers	Diabetic Foot Ulcers	Evaluation of Clinical And Bacteriological Course Of Infection	Medication Treatment	Satisfactory
19	Role Of Leukocytosis, Serum Bilirubin, Serum Alkaline Phosphate And Gall Bladder Wall Thickness In Predicting Conveersion Of Laproscopic Cholecystectomy To Open Cholecystectomy	Role Of Leukocytosis, Serum Bilirubin, Serum Alkaline Phosphate And Gall Bladder Wall Thickness	Conversion of Laproscopic Cholecystectomy To Open Cholecystectomy	Open Cholecystectomy- **Traditional** Laproscopic Cholecystectomy- **New**	Good Effort
20	Clinical And Radiological Study Of Urethral Injuries And Stricture Urethra	Urethral Injuries And Stricture Urethra	Clinical And Radiological	Diagnostic Procedure	Satisfactory
21	A Comparitive Study To Evaluate The Efficacy Of Ultrasound Guided Foam Sclerotherapy And Radiofrequency Ablation For The Management Of Varicose Veins	Management Of Varicose Veins	USG Guided Foam Sclerotherapy & Radiofrequency Ablation	Conservative (open)- **Traditional** USG Guided Foam Sclerotherapy & Radiofrequency Ablation- **New**	Good Effort
22	A Prospective Study Comparing Mesh Hernioplasty Using Prolene Hernia System (Phs) And Lichtenstein Repair In Inguinal Hernias	Inguinal Hernias	Prolene Hernia System (Phs) & Lichtenstein Repair	Lichtenstein Repair- **Traditional** Prolene Hernia System (Phs)- **New**	Good Effort
23	A Prospective Study To Compare Efficacy Of Bisap And Apache- II Score As A Reliable Prognostic Tool In Acute Pancreatitis	Acute Pancreatitis	Bisap & Apache- II Score	Apache- II- **Traditional** Bisap- **New**	Good Effort
24	A Study To Establish The Role Of Thoracoscopy In Diagnosis Of Medically Undiagnosed Pleural Effusion And Treatment Of Recurrent/ Non- Recurrent(Diagnosed Or Undiagnosed) Pleural Effusion	Pleural Effusion	Diagnostic Procedure	Diagnostic Procedure	Satisfactory
25	Evaluation Of Noncontrast Computedtomography In Diagnosing Acute Appendicitis	Acute Appendicitis	Noncontrast Computedtomography	Diagnostic Procedure	Worth Publishing
26	PSA Indices In Early Detection Of Carcinoma Prostate And Correlation With Clinical And Radiological Methods	Carcinoma Prostate	Clinical And Radiological Methods	Diagnostic Procedure	Satisfactory
27	Ventral Hernia Repair With An Open Onlay Mesh Incidence Of Complications And Seroma Formation	Ventral Hernia Repair	Open Onlay Mesh	Open Onlay Mesh- **Traditional**	Worth Publishing
28	A Comparitive Study Of Results Of Radiofrequency Ablation And Conventional Surgery For Long Saphenous Vein Varicosity	Long Saphenous Vein Varicosity	Radiofrequency Ablation & Conventional Surgery	Conventional Surgery- **Traditional** Radiofrequency Ablation- **New**	Good Effort

29	A Comparative Study To Determine The Functional Outcome Of The Primary Posterior Sagittal Anorectoplasty (PSARP) Compared To The 3 Staged Procedure For Correction Of Anorectal Malformations	Anorectal Malformations	Primary Posterior Sagittal Anorectoplasty (PSARP) & 3 Staged Procedure	3 Staged Procedure- **Traditional** Primary Posterior Sagittal Anorectoplasty (PSARP)- **New**	Good Effort
30	Short Term Wound Infection Rates In Lichtenstein's Inguinal Hernia Repair After Single Dose And Full Regime Antibiotics - A Comparitive Study	Inguinal Hernia Repair	Lichtenstein's Inguinal Hernia Repair	Lichtenstein's Inguinal Hernia Repair- **Traditional**	Good Effort
31	Comparitive Study Of The Effects Of Single Imdoses Of Tramadol And Diclofenac Alone And In Combination In Post Operative Patients Undergoing Laproscopic Cholecystectomy	Post Operative Patients Undergoing Laproscopic Cholecystectomy	The Effects Of Single Imdoses Of Tramadol And Diclofenac Alone	Medication Treatment	Good Effort
32	Comparision Of Laproscopic And Open Repair Of Incisional And Ventral Hernia	Incisional And Ventral Hernia	Laproscopic And Open Hernia Repair	Open Hernia Repair- **Traditional** Laproscopic Repair- **New**	Satisfactory
33	Comparitive Study Of Conservative Management Ultrasound Guided Needle Aspiration And Ultrasound Guided Pigtail Drainage Of Uncomplicated Amoebic Liver Abscess	Uncomplicated Amoebic Liver Abscess	Conservative Management Ultrasound Guided Needle Aspiration & Ultrasound Guided Pigtail Drainage	Conservative Management Ultrasound Guided Needle Aspiration- **Traditional** Ultrasound Guided Pigtail Drainage- **New**	Good Effort
34	To Compare The Therapeutic Efficacy Of Conservative Management And Radiological Guided Pigtail Catheter Drainage Of Uncomplicated Amoebic Liver Abscess	Uncomplicated Amoebic Liver Abscess	Conservative Management & Radiological Guided Pigtail Catheter Drainage	Conservative Management- **Traditional** Radiological Guided Pigtail Catheter Drainage- **New**	Good Effort
35	To Evaluate Rectovaginal Septum By Endoanal Ultrasound In Patients Of Constipation And Piles With Or Without Obstructive Defecatory Syndrome (ODS)	Evaluation of Rectovaginal Septum in patients of Constipation And Piles With Or Without Obstructive Defecatory Syndrome (ODS)	Endoanal Ultrasound (Diagnostic procedure)	STARR(Stapled Transanal Resection of the Rectum)- **Traditional** Endoanal Ultrasound- **New**	Worth Publishing
36	A Comparative Study Between Desarda Technique Of Inguinal Hernia Repair And Mesh Repair Of Inguinal Hernia	Inguinal Hernia Repair	Desarda Technique & Mesh Repair	Mesh Repair- **Traditional** Desarda Technique- **New**	Good Effort

37	Association Between Gallstone Disease And Metabolic Syndrome	Gallstone Disease	Association between the two disorders	Medication Treatment	Good Effort
38	Suction Dressing In Wounds	Wounds	Suction Dressing	Suction Dressing- **Traditional** No new Procedure	Good Effort
39	Role Of Pre-Emptive Analgesia In Postoperative Pain In Ventral Hernia Repair	Ventral Hernia Repair	Pre-Emptive Analgesia	Medication	Worth Publishing
40	Comparative Study Of Diagnostic Accuracy Of Modified Alvarado Score & Ultrasonography In Acute Appendicitis	Acute Appendicitis	Modified Alvarado Score & Ultrasonography	Diagnostic Procedure	Worth Publishing

Note:- Advantages & Disadvantages have been described in the Discussion part of the Project.

A DNB assessor is chosen as he/she is an expert in his/her specialty/field and reviews the theses based on the following parameters-

- Study Area
- Study Population
- Sample size and Sample Technique
- Data Collection Technique and Tools
- Data Analysis
- Results
- Discussion
- Conclusion

A thorough evaluation of the thesis enables the assessor to decide if the Title of the thesis and its overall work is Worth Publishing, Good Effort or Satisfactory according to the assessment format for DNB theses. In some cases, if the thesis work is not accurate or satisfied to the assessors, then it may get rejected and suggested for Modification of thesis simultaneously.

Using the Assessor's assessment report in General Surgery, the theses topics have been assessed as **Worth Publishing, Good Effort and Satisfactory**. In this study, the '**Worth Publishing'** can be compared to as **'Highly Relevant', 'Good Effort'** as **'Relevant'** and **'Satisfactory'** as **'Less Relevant'.**

i.e, **Worth Publishing → Highly Relevant**

Good Effort → Relevant

Satisfactory → Less Relevant

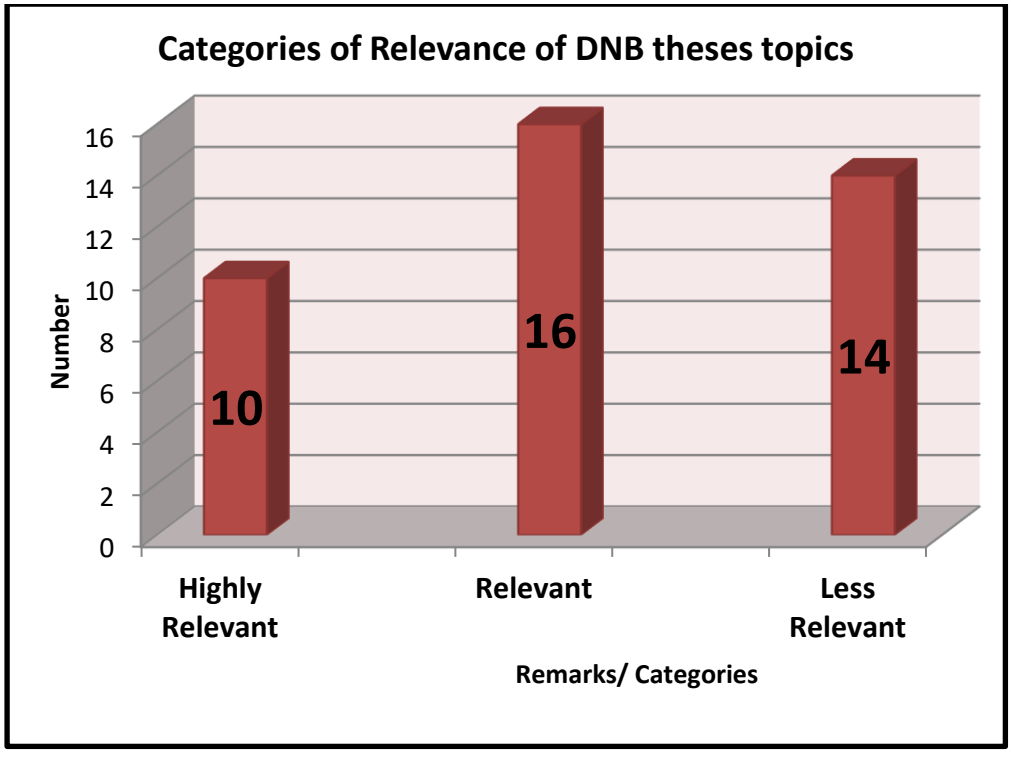
The format for assessment of DNB theses documented by the NBE doesn't allow for any Scoring pattern. The format only suggest as – Thesis Acceptance or Thesis Modification.

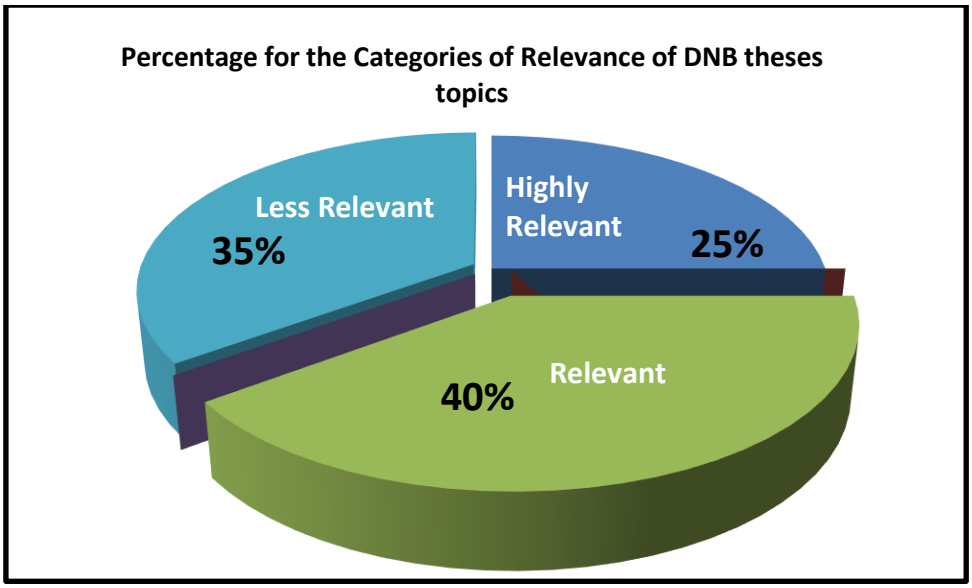
Title of the Theses	Highly Relevant	Relevant	Less Relevant
Evaluation Of Abdominal Wound Closure Using Continuous Versus Interrupted Sutures In Patients Of Perforation Peritonitis			✓
Comparative Study Of Various Scoring Systems In Assessing The Severity Of Acute Pancreatitis			✓
To Compare Open 'Inlay' Versus 'Onlay' Meshplasty In Influencing The Final Outcome In Ventral Hernia Repair.	✓		
Comparision Of Functional Outcome Of Open And Laparoscopic Appendicectomy With Use Of CT Scan To Allocate Patients.			✓
A Comparitive Study Of Post Operative Results Of Stapled Haemorrhoidopexy And Open Haemorrhoidectomy			✓
Study Of Intravenous Dexamethasone In Laparoscopic Cholecystectomy In Reducing Post Operative Nausea, Vomiting And Pain		✓	
Evaluation Of Combined Use Of Modified Alvarado Score And Ultrasonography In The Diagnosis Of Acute Appendicitis	✓		
To Compare The Use Of Electrosurgery And Conventional Scalpel In Making An Abdominal Incision			✓
To Assess The Expression Of Her-2/Neu In Transitional Cell Carcinoma Of Urinary Bladder			✓
Management Of Uteric Calculi -A Clinical Study			✓
Accurate Diagnosis Of Acute Appendicitis With Reference To The Clinical Examination, Role Of Wbc Count, C-Reactive Protien (Crp), USG & Alvarado Score	✓		
A Prospective Study For Correlation Of Preoperative Ultrasonographic And Intraoperative Findings With An Emphasis On Predicting Final Outcome In Gallstone Disease		✓	
Comparision Of Laproscopic Appendicectomy Versus Open Appendicectomy In The Management Of Acute Appendicitis	✓		
Assessment Of Sentinel Lymph Node Mapping Using Methylene Blue Dye In Early Breast Cancer With Clinically Negative Axilla			✓
Laparoscopic Vs Open Ventral Hernia Repair - A Comparitive Analysis	✓		
Compartive Study Of Vaseline Gauze Vs Collagen Dressing In Management Of Splitskin Grafting Of Donor Site			
To Study Co-Relation Between Ultrasonographic Findings With Operative And Histopathological Findings In Cases Of Gall Stone Disease		✓	
To Evaluate The Clinical And Bacteriological Course Of Infection In Diabetic Foot Ulcers			✓

Role Of Leukocytosis, Serum Bilirubin, Serum Alkaline Phosphate And Gall Bladder Wall Thickness In Predicting Conveersion Of Laproscopic Cholecystectomy To Open Cholecystectomy		✓	
Clinical And Radiological Study Of Urethral Injuries And Stricture Urethra			✓
A Comparitive Study To Evaluate The Efficacy Of Ultrasound Guided Foam Sclerotherapy And Radiofrequency Ablation For The Management Of Varicose Veins		✓	
A Prospective Study Comparing Mesh Hernioplasty Using Prolene Hernia System (PHS) And Lichtenstein Repair In Inguinal Hernias		✓	
A Prospective Study To Compare Efficacy Of Bisap And Apache- II Score As A Reliable Prognostic Tool In Acute Pancreatitis		✓	
A Study To Establish The Role Of Thoracoscopy In Diagnosis Of Medically Undiagnosed Pleural Effusion And Treatment Of Recurrent/ Non- Recurrent(Diagnosed Or Undiagnosed) Pleural Effusion			✓
Evaluation Of Noncontrast Computedtomography In Diagnosing Acute Appendicitis	✓		
PSA Indices In Early Detection Of Carcinoma Prostate And Correlation With Clinical And Radiological Methods			✓
Ventral Hernia Repair With An Open Onlay Mesh Incidence Of Complications And Seroma Formation	✓		
A Comparitive Study Of Results Of Radiofrequency Ablation And Conventional Surgery For Long Saphenous Vein Varicosity		✓	
A Comparative Study To Determine The Functional Outcome Of The Primary Posterior Sagittal Anorectoplasty (PSARP) Compared To The 3 Staged Procedure For Correction Of Anorectal Malformations		✓	
Short Term Wound Infection Rates In Lichtenstein's Inguinal Hernia Repair After Single Dose And Full Regime Antibiotics - A Comparitive Study		✓	
Comparitive Study Of The Effects Of Single Imdoses Of Tramadol And Diclofenac Alone And In Combination In Post Operative Patients Undergoing Laproscopic Cholecystectomy		✓	
Comparision Of Laproscopic And Open Repair Of Incisional And Ventral Hernia			✓
Comparitive Study Of Conservative Management Ultrasound Guided Needle Aspiration And Ultrasound Guided Pigtail Drainage Of Uncomplicated Amoebic Liver Abscess		✓	
To Compare The Therapeutic Efficacy Of Conservative Management And Radiological Guided Pigtail Catheter Drainage Of Uncomplicated Amoebic Liver Abscess		✓	
To Evaluate Rectovaginal Septum By Endoanal Ultrasound In Patients Of Constipation And Piles With Or Without Obstructive Defecatory Syndrome (ODS)	✓		
A Comparative Study Between Desarda Technique Of Inguinal Hernia Repair And Mesh Repair Of Inguinal Hernia		✓	

Association Between Gallstone Disease And Metabolic Syndrome		✓	
Suction Dressing In Wounds		✓	
Role Of Pre-Emptive Analgesia In Postoperative Pain In Ventral Hernia Repair	✓		
Comparative Study Of Diagnostic Accuracy Of Modified Alvarado Score & Ultrasonography In Acute Appendicitis	✓		

Remarks	Number
Highly Relevant	10
Relevant	16
Less Relevant	14
Total	**40**





From this study, the following results have been found-

25% of the DNB theses topics in General Surgery are **Highly Relevant**.

40% of the DNB theses topics in General Surgery are **Relevant.**

35% of the DNB theses topics in General Surgery are **Less Relevant.**

DISCUSSION

From the study it has been found that-

25% of the DNB theses topics in General Surgery are **Highly Relevant**.

40% of the DNB theses topics in General Surgery are **Relevant.**

35% of the DNB theses topics in General Surgery are **Less Relevant.**

So the percentage of the **Relevant** Topic is more.

Some Advantages of the New procedure against the Traditional procedure has been described briefly and also the available Disadvantages as below-

- **Advantages of new procedure :- Laparoscopic Appendicectomy**

  - Laparoscopic Appendicectomy is safe, simple and sufficient technique for treatment.
  - Benefit is to be obtained from the Laparoscopic approach in cases of milder Acute Appendicitis.
  - Laparoscopic approach can be performed in Acute Appendicitis with lesser morbidity.
  - Decreased hospital stay and lay-off from activity.

- **Disadvantages of New Procedure :-**
  - Time to return to normal activity and work is significantly more for open approach.

- **Advantages of new procedure:- Laparoscopic Ventral Hernia Repair**

  - Laparoscopic Ventral Hernia Repair (LVHR) is effective for the vast majority of patients with primary or recurrent ventral hernias and results in hernia recurrence rates of less than 10% with high satisfaction scores.
  - It is safe and results in shorter operative time, less wound infection, less cost, less blood loss fewer complications, and less recurrence.
  - Shortened postoperative hospital stay and the reduced incidence of mesh infection.
  - LVHR is a safe alternative to the open method with the main advantages being minimal postoperative pain and better cosmetic results.
  - LVHR is fast becoming the standard approach in the repair of abdominal wall hernias.

- Time to resume work activities is shorter for the LVHR group than for the Open Repair group.
- LVHR is a safe technique with low complication rate, less postoperative body pain, and better quality-of-life outcomes compared with open technique, being well accepted from the patient's perspective for quality of life.
- It is considered as first choice for ventral hernia repair.
- The advantage of the Onlay Meshplasty is the defects other than in the midline abdominal wall can be repaired with this technique.

➢ **Disadvantages of New Procedure :-**

- Seroma is the most common complication, major morbidity occurred in 7.4 % of the patients.
- Incidental Enterotomy, protracted pain , occur at an acceptable rate.
- When hernias are complicated LVHR is infrequently used.
- The onlay technique has significantly more complications as compared to inlay technique.

- **Advantages of Laparoscopic Cholecystectomy (LC) :-**

  - **LC** minimizes trauma and also permits execution of complex operative procedures within a closed physiological environment, in a delicate fashion with the use of micro instrument and avoidance of abdominal wall retraction to achieve exposure.

  - **LC** also results in accelerated recovery. This permits early return to full activity. Virtually, there is abolition of wound infection and other wound related complications both early and late.

  - Diminished contact with patient's blood, inferring reduced risk of the transmission of AIDS.

  - Safety and efficacy, to achieve less distress & more comfort for the patient.

- **Disadvantages of Laparoscopic Cholecystectomy (LC) :-**

  About 5% of elective LC need to be converted to open Cholecystectomy.

- **<u>Advantages of New Procedure :-</u> Prolene Hernia System(PHS)**

  - Patient Comfort
  - Virtually zero chance of migration
  - Little suturing, reducing the risk of nerve damage that could lead to pain
  - Can be done under local or regional Anesthesia
  - Takes typically about 20-40 minutes
  - Quick recovery and return to normal activities
  - Extremely low recurrence rates.

- **<u>Disadvantages of New Procedure :-</u> Prolene Hernia System(PHS)**

- Three- dimensional mesh devices such as Prolene Hernia System (PHS) have revolutionized the repair of hernias by building upon the advantages of the tension-free techniques and making them even more effective.
- PROLENE hernia system a "3-in-1" design (meaning that it incorporates three of the most widely used and accepted repair techniques into one single device) consist of three components integrated into one device:
- An underlay patch that provides an effective posterior repair on the inside of the abdominal wall, much like laparoscopic repair.
- An onlay patch that lays over the abdominal wall, much like a flat mesh repair
- A low-profile connector that connects the underlay patch on the onlay patch. This connector virtually eliminates the possibility of the device from moving, or migrating, thus significantly reducing the potential for recurrence.
- The system sandwiches tissue between two layers of mesh, which supplements potentially weak areas of the abdominal wall and minimizes the chances of getting another hernia in the same area. The patch helps the body heal by acting as a matrix for tissue in growth.

CONCLUSION

'General Surgery' in name, should continue to be an education tool, but as a consequence of the focused training experience, the DNB trainee/candidate should be named not a general surgeon but by the specialty or subspecialty in the area of expertise. Specialization not only gives the surgeon an identity but also may be an answer to improve patient outcome.

The time has come to redefine and to optimize graduate training in General Surgery. The residents clearly express that, during the residency period, they do not have the opportunity to gain enough experience necessary to perform reliably in a safe and effective manner. The need for further specialization is the consequence of the exponential growth in technology.

To find solutions to all these problems, some tentative suggestions are there-

- The candidate should meticulously follow the guidelines prescribed by NBE.
- The resident training program should be structured and organized to provide focused training in all surgical specialties.

During this period, the residency program should offer much more complete technical training. This technology-oriented system will be balanced with important educational issues.

- Residents should base surgical advice on scientific evidence rather than experience alone.
- Residents should learn to work in a system that centers on collaborative effort care with other professionals.
- With the advent of telemedicine and other advances in information technology, surgical residents could obtain rapid access to recent development and evidence-based practice related to new technology and innovations in general surgical practice.
- Training should be focused on a disease based rather than a disciplined based system.

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ANNEXURE

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NATIONAL BOARD OF EXAMINATIONS
FORMAT FOR ASSESSMENT OF DNB THESIS

1. IDENTIFICATION DATA

1.1 Name of the Specialty: Rani Dipa

1.2 Title of the Thesis and year of submission of thesis: To Study the Pregnancy Outcomes Beyond 37 Weeks of Gestation with Spontaneous versus Induced Labor and it's Effect on Maternal and Fetal Outcome

1.3 Name of the candidate: Rani Dipa

1.4 Code Number: 133416/2013

II. REMARKS OF THE ASSESSOR

Please give your remarks on the thesis under the following sub heads. In case of modifications, please indicate the specific modifications desired and suggestions for the candidate.

2.1 INTRODUCTION

2.2 AIMS & OBJECTIVES OF THE STUDY

2.3 REVIEW OF LITERATURE

2.4 MATERIAL & METHOD

2.4.1 STUDY AREA

2.4.2 STUDY POPULATION

2.4.3 SAMPLE SIZE & SAMPLE TECHNIQUE

2.4.4 DATA COLLECTION TECHNIQUE AND TOOLS

2.4.5 DATA ANALYSIS

2.4.6 RESULTS

2.4.7 DISCUSSION

2.4.8 CONCLUSIONS

2.4.9 REFERENCES/BIBLIOGRAPHY

2.4.10 ANNEXURE

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III. RECOMMENDATIONS OF THE THESIS ASSESSOR

Kindly check the appropriate box below:

3.1 ☐ **Thesis is accepted in the present form.**

Satisfactory Work ☐ **Good Effort** ☐

Commendable Work, Worth Publishing ☐

3.2 ☐ **Thesis is NOT accepted in the present form.**

If No, the thesis should be modified as per the above mentioned remarks and suggestions.

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