# Enhancing the documentation compliance towards NABH standards for inpatient record keeping in a tertiary care multispecialty hospital

A dissertation submitted in partial fulfilment of the requirements
for the award of

Post-Graduate Diploma in Health and Hospital Management

by

Dr Smriti Chawla


International Institute of Health Management Research
New Delhi -110075

**April 2012**

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Sri Balaji
**Action Medical Institute**
FC - 34, A-4, Paschim Vihar, New Delhi - 110 063

**Certificate of Internship Completion**

Date: 04/5/12

## TO WHOM IT MAY CONCERN

This is to certify that Dr. Smriti Chawla has successfully completed her 3 months internship in our organization from January 16, 2012 to April 16, 2012. During this internship she has worked on "Enhancing the documentation compliance towards NABH standards for inpatient record keeping in a tertiary care multispecialty hospital", under my guidance at Sri Balaji Action Medical Institute.

Comment:

We wish her good luck for her future assignments.

Dr. Reeta Varshney
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## Certificate of Approval

The following dissertation titled "Enhancing the documentation compliance towards NABH standards for inpatient record keeping in a tertiary care multispecialty hospital" is hereby approved as a certified study in management carried out and presented in a manner satisfactory to warrant its acceptance as a prerequisite 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 **Dr. Smriti Chawla**, a graduate student of the **Post- Graduate Diploma in Health and Hospital Management**, has worked under our guidance and supervision. He/She is submitting this dissertation titled "Enhancing the documentation compliance towards NABH standards for inpatient record keeping in a tertiary care multispecialty hospital", 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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# ABSTRACT


**"Enhancing the documentation compliance towards NABH standards for inpatient record keeping in a tertiary care multispecialty hospital"**

by

Dr. Smriti Chawla

**Introduction:** Medical record is a systematic documentation of a patient's personal and social data, history of his or her ailment, clinical findings, investigations, diagnosis, treatment given, and an account of follow-up and final outcome. The rationale for the study stemmed from a need of continuous quality improvement for inpatient record keeping by the organization.

**Methodology:** The study is interventional in nature. Criteria were chosen according to NABH standards and a checklist was prepared. The study was divided into two phases, pre – interventional and post – interventional. Active case records of patients in all the inpatient areas of the hospital. The interventions were in the form of informal interviews with higher authorities which includes Medical Superintendents, Deputy Medical Superintendents and Nursing Superintendents, on-site counseling sessions for the old staff, training sessions for the new staff, regular feedbacks to respective floor administrators and sister in-charges regarding the level of non-compliances and open meetings with all stakeholders.

**Results:** The results of this study have shown initial improvements in the level of non-compliances, but improvements in the compliances relating to initial assessment, progress notes, referral sheets, plan of care, surgical safety checklist, post-operative charting, surgeon signature on consents requires more attention, cooperation and commitment by the concerned stakeholders.

**Conclusion:** A joint effort from all the people involved in patient care is necessary for improvements in compliances of in-patient record keeping as per NABH standards. This study concludes the need for training, ongoing education, cooperation among stakeholders in reforming documentation compliances. Further a constant supervision with the help of checklist can help in maintaining the requisite standards.

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# ACRONYMS

**AAC** - Access, Assessment and Continuity of Care

**Cath Lab** – Catheterization Laboratory

**CON** - Consents

**COP -** Care of Patient

**CQI** - Continuous Quality Improvement

**CSSD** – Central Sterilization Supply Department

**CT** – Computerized Tomography

**CTVS** – Cardiothoracic Vascular Surgery

**DN** – Daily Notes

**EDP** – Electronic Data Processing

**ENT** – Ear, Nose & Throat

**ERCP** – Endoscopic Retrograde Cholangiopancreatography

**FMS -** Facility Management and Safety

**GC** – General Consent

**GS** – General Surgery

**HDU** – High Dependency Unit

**HIC** - Hospital Infection Control

**HIU** – Health Informatics Unit

**HMIS** – Hospital Management Information system

**HRM** - Human Resource Management

**IA** – Initial Assessment

**ICU** – Intensive Care Unit

**IICU** – Infant Intensive Care Unit

**ICCU** – Intensive Coronary Care Unit

**IMS -** Information Management System

**IP** – In Patient

**IPD –** In Patient Department

**MICU** – Medical Intensive Care Unit

**Misc** – Miscellaneous

**MLC** – Medico Legal Cases

**MOM** - Management of Medication

**MRD** – Medical Records Department

**MRI** – Magnetic Resonance Imaging

**NABH –** National Accreditation Board for Hospitals and Healthcare Providers

**NGO** – Non–Governmental Organization

**NHS** – National Health Scheme

**OPD** – Out Patient Department

**OR** – Operating Room

**OT** – Operation Theatre

**POC** – Plan of Care

**POS –** Physician Order Sheet

**PRE** - Patient Right and Education

**QCI** – Quality Council of India

**RCP** – Royal College of Physicians

**ROM** - Responsibility of Management

**SICU** – Surgical Intensive Care Unit

**SSI** – Surgical Site Infection

**SU** - Surgery

**TPA** – Third Party Administrator

**TSSU** – Theatre Sterile Supply Unit

**UK –** United Kingdom

# PART I

# INTERNSHIP REPORT

## HOSPITAL PROFILE

It is an ISO 9001-2000 and NABH accredited 450 bedded multi-specialty hosiptal with well equipped NABL accredited laboratory.

The infrastructure, equipment and technology have been integrated to provide globally compatible health care. The institute offers medical facilities of all specialty and super specialty. The institute is committed to improve the health and satisfaction level of patients by ensuring continual improvement by –

- Providing high quality of care according to the health need of the patients.
- Facilitating patient satisfaction by service and ensuring the dignity and rights of patients.

The hospital has –

- Hi-tech critical care units of ICCU, ICU, Neonatal ICU with motorized bed.
- Complete cardiology services including heart surgery, angioplasty, angiography, TMT, stress echo and a dedicated heart command unit for cardiac emergency.
- Mother and child complex with single room maternity care concept, gastroenterology services including ERCP, Gastrointestinal Endoscopy, liver clinic and Neuro service unit.
- Complete Urology and nephrology including dialysis unit.
- Full backup of laboratory service and blood bank with 24 hour services.
- Advanced imaging and radio diagnostics including X-ray, CT, MRI, ultrasonography, bone densitometry and mammography.

**Location:**

FC-34, A4, Paschim Vihar New Delhi, 110063.

**Vision:**

To become the largest healthcare provider NGO in the country with the human touch.

**Mission:**

To provide world class affordable health care facilities to all sections of the society with a humanitarian touch, whilst maintaining high standards of ethical practices and professional competency with emphasis on training and education leading to research.

**Specialities and Super-Specialities:**

The hospital has over 35 medical specialties and over 10 special clinics.

| **SPECIALITIES AND SUPER-SPECIALITIES** | |
|---|---|
| **Anesthesiology** | **Psychiatry** |
| **Dentistry** | **Gastroenterology** |
| **Neurology** | **General Surgery** |
| **Pediatrics** | **Pediatric Surgery** |
| **Rehabilitation** | **Clinical Psychology** |
| **Urology** | **Gynae oncology** |
| **Cardiology** | **Cardiothoracic vascular surgery** |
| **Dermatology** | **ENT** |
| **Nephrology** | **Pediatric medicine** |
| **Oncology** | **Respiratory Medicine** |
| **Neurosurgery** | **Obstetrics and Gynaecology** |
| **Ophthalmology** | **Occupational therapy** |
| **Plastic surgery** | **Internal/General Medicine** |
| **Rheumatology** | **Gastroenterology Surgery** |
| **Orthopaedics** | |

| SPECIAL CLINICS | |
|---|---|
| **Liver Clinic** | **Spine Clinic** |
| **Knee Clinic** | **Interventional Radiology** |
| **Pancreato-Billary Clinic** | **Endocrine Surgery** |
| **Asthma Clinic** | **Diabetic Foot Care** |
| **Child Development Clinic** | **Pain Clinic** |
| **Arthritis and Sports Injury Clinic** | **Stokes Clinic** |
| **Vitreo-Retina Clinic** | |

**Departments & Services:**

| | |
|---|---|
| **GROUND FLOOR** | OPD |
| | Emergency |
| | Radiology |
| | Sample Collection Room |
| | Plaster Room |
| | Dressing-Vaccination Room |
| | Minor OT |
| | Health check-up |
| | Gastro Department |
| | Neuro ICU |
| | Front Desk (Registration, Admission) |
| | Billing |
| | Panel Desk |
| | OPD Pharmacy |
| | AMS Room |
| **FIRST FLOOR** | Heart Command 1 |
| | Dialysis Unit |

| | |
|---|---|
| | Visitors Lounge and Canteen |
| | Mother and Child Complex |
| | Private, Semi-private, Economy Wards |
| **SECOND FLOOR** | Day Care |
| | HDU |
| | OT Complex |
| | MICU |
| | SICU |
| | Private, Semi-private, Economy Wards |
| **THIRD FLOOR** | Heart Command 3 |
| | Cath Lab |
| | Cath Recovery |
| | CTVS OT (Cardiac OT) |
| | CTVS Recovery |
| | Private, Semi-private Wards |
| | Administration Block |
| **FOURTH FLOOR** | Semi-Private Ward |
| | Deluxe & Super Deluxe Suite |
| **BASEMENT** | Pharmacy |
| | Medical Store |
| | MRD |
| | CSSD |
| | Physiotherapy Department |
| | Pathology Lab |
| | Blood Bank |
| | CT/MRI |
| | Bone Densitometry |
| | Mammography |
| | EDP |

| | |
|---|---|
| | Conference Hall |
| | Library |
| | Housekeeping |

**OPD:**

All disciplines and super-specialities have OPD days. Three types of OPDs are run:

- General
- Panel
- Private

Timings of General OPD are 8:30 am - 10:20 am (Speciality) and 11:30 am – 12:30 pm (Super-speciality).

Timings of Panel OPD are 10:45 am – 11:15 am (Speciality) and 12:45 pm – 1:15 pm (Super-speciality).

Timings of Private OPD are 9 am - 7 pm.

**Emergency:**

Services are provided 24 hours. A team of experts from all the departments is available round the clock with attached emergency OT and critical observation ward.

**Radiology, CT & MRI:**

They are equipped with latest MRI 1.5 Tesla MAGNETOM AVANTO featuring total imaging matrix TIM which permits seamless whole body anatomical coverage without patient repositioning, SOMATOM EMOTION DUO CT Scanner dual slice, sub second with all advanced applications for CT angiography, volume rendering, AXIOM ICONOS remote controlled Digital Fluoroscopy, and Compound Radiography CR System and Colour Doppler, ultra-sonography.

Hologic Bone Densitometer DXA for detection of osteoporosis, thinning of bones and a dedicated mammography for early detection of breast cancer.

**Health Check-Up:**

Located along with Private OPD in South Wing. Various types of health check-up packages are offered like:

- General Health Check-up
- Preventive Health Check-up
- Executive Health Check-up
- Heart Health Check-up
- Comprehensive Health Check-up
- Child Health Check-up
- Women Health Check-up

**Front Desk:**

Enquiries regarding admission, patient status etc can be made at the front desk. Round the clock admission facility is available.

**Panel Desk:**

It is for the various government and private employees. A list of empanelled companies is put on a board.

**Dialysis Unit:**

It is well equipped with 16 beds and 16 dialysis machines.

**Mother & Child Complex:**

It takes care of the new born, pre-term and critically sick babies. It is equipped with electronic labor table latest monitors, cardiotocograph for external foetal monitoring, Hi-tech Neo-natal resuscitation unit beside facilities of Servo control warmers, latest generation ventilators, transport incubators, multi-para monitoring, double surface photo therapy andpidse oximeter.

For the first time in Delhi the complex offers facility of latest international concept of natural child birth in a single room maternity care with special birthing bed.

**Heart Command & Cath Lab:**

The cardiac centre provides immediate intensive care to the critical patients. It is equipped with sophisticated investigative facilities and crucial decisions involving Intra-aortic Balloon Pump, Ventilator, Cardiac Pacing, Angioplasty or Bypass are taken without delay.

Non-invasive advanced diagnostic facilities include TMT, Color Doppler, Echocardiography machine, Holter monitoring system, Pulmonary Function Test Lab and Electrocardiogram. The diagnostic tests ensure complete picture of the patient before preventive and curative measures are worked out. Interventional Cardiology with high resolution flat panel Cardiac Catheterization Lab performs full range of invasive procedures of Coronary Carotid and Renal Angiography, Coronary and Peripheral Angioplasty, Stenting, Balloon Mitral, Aortic and Pulmonary Valvuloplasty.

Coronary Artery Bypass Graft for total arterial revascularization to provide long term patency of graft and surgery on the Beating Heart without use of heart-lung machine are carried out by a team of highly trained surgeons and anaesthesiologists. The intensive care units provide constant monitoring and critical care to the post operative patients.

**Operation Theatre:**

SBAMI has 11 state of the art Operation Theatres (O.T.) . These OT'S are designed as per international standards with central supply and laminar airflow , stainless steel cladding on walls and epoxy coating on the floor for electro static and infection free environment is equipped with specialized electrically operated tables, operating lights and anesthesia machines.

Nearly, major/minor, elective/emergency operations are performed daily, round the clock, out of which are on day care basis.

**Ergonomics of the Operation Rooms:**

- Hermetically sealed modular theatres with both hand and foot operated sliding sensor doors (run on nylon wheels for smooth and effortless sliding), each door having a 300x300 mm viewing window.

- Seamless flooring, walls, slopping and ceiling made up of Zinc passivated galvanized steel sprayed with 400 micron thick antibacterial paint
- Washable anti static and conductive flooring resistant to mechanical stress and dynamic loads
- Each theatre with 4 air exhausts outlets one at each corner near floor is provided with HEPA filters and a central plain air covered with hand woven perforated polyester sheet. All combined together give the air flow a laminar pattern with 20 air changes per hour of fresh air to minimize the surgical site infections (SSI)
- The ceiling mounted laminar flow friendly Operating Lights emitting white and shadow less light.
- The electro hydraulic operating tables that offer maximum flexibility in their use for doing variegated type of surgeries
- Tile based membrane type control panel mounted flush in theatre wall comprising: Day time clock, Lapse time clock, dimmer for plain air and peripheral lights, (hand free telephone), medical gases status/alarm and indicators for temperature and humidity
- Twin plate X-Ray viewing box
- Cascade pressure stabilizer having 304grade SS blades
- 2 Bay stainless steel scrub sinks with photo electric sensors
- All theatres are provided with continuous central supply for Oxygen, Nitrous Oxide, high and low pressure air at required flow and pressures. 6 theatres are fitted with extra ceiling mounted endoscopic pendants with central supply of Carbon Dioxide for Laparoscopic surgeries
- Regular electricity supply through UPS is ensured in the theatres
- The spacious pre and postoperative areas are fitted with modern monitors along with other paraphernalia for continuous observation of patients.

**MICU & SICU:**

The Medical and Surgical Intensive Care Units are attached to the OT Complex.

## CSSD:

Main responsibilities of CSSD are cleaning, processing and sterilization of surgical instruments, treatment trays, dressings, rubber goods etc. It receives supplies from ORs, ICUs, Cath Lab, IPD, HDU and wards.

**Medical Records Department:**

It performs following functions:

- Proper storage and maintenance of medical records
- Maintenance of integrity and confidentiality of medical records
- Submission of required data to government
- Statistics
- Birth and death certificate
- MLC
- Retention of medical records.

**Pathology Laboratory:**

It offers full range of diagnostic facilities backed by world renowned hi-tech investigative equipments for accurate and reliable results with patient friendly sample collection system. Also there is Immuno Assay Laboratory with fully automated analyser for hormones, infections markers, tumour markers and drug levels, Elisa reader along with programmable Elisa plate washer for coverage of full range of immuno assays.

**Blood Bank:**

Round the clock services of blood banking are available to support elective and emergency situations requiring blood. State of the art equipments have been installed (like Latest apheresis machine) for component separation for all platelets requirements and for component extraction from whole blood and to facilitate component therapy and to minimize blood transfusion reaction. Whole blood and components storage is done in blood bank refrigerators, platelet agitator and deep freezers.

**Housekeeping:**

Functions:

- Sanitation and hygiene
- Odour control
- Waste disposal
- Pests, rodents and animal control
- Interior decoration
- Prevention of fire
- Infection control.

# PART II

## "Enhancing the documentation compliance towards NABH standards for inpatient record keeping in a tertiary care multispecialty hospital"

# CHAPTER I – INTRODUCTION

***"Nothing is more devastating to an innocent physician's defense against the allegations of medical malpractice than an inaccurate, illegible or skimpy record, except for a record which has been changed after the fact, and therefore inevitably compromises the otherwise defensible case."***

*Brad Cohn, MD, Pediatrician*
*Chairman, MIEC Board of Governors*
*Oakland, California*

### 1.1 NABH

Quality Council of India (QCI) was set up in 1997 by the Government of India to establish and operate national accreditation structure and promote quality through National Quality Campaign. National Quality Campaign aims at promoting quality by enabling manufacturers and suppliers of goods/ services to apply quality standards and tools and simultaneously empowering consumers to demand quality goods/services. The promotion of quality encompasses all segments including manufacturing, health, education and public services.

National Accreditation Board for Hospitals & Healthcare Providers (NABH) is a constituent board of Quality Council of India, set up to establish and operate accreditation programme for healthcare organizations. The board is structured to cater to much desired needs of the consumers and to set benchmarks for progress of health industry. The board while being supported by all stakeholders including industry, consumers, government, have full functional autonomy in its operation. The accreditation is given after an independent external peer group verifies that the organization fulfils all of the quality standards set up by NABH.

Accreditation has been defined as Certification of competence in a specified subject or areas of expertise, and of the integrity of an agency, firm, group, or person, awarded by a duly recognized and respected accrediting organization.

Accreditation by NABH is defined as "a public recognition of the achievement of accreditation standards by a healthcare organization, demonstrated through an independent external peer assessment of that organization's level of performance in relation to the standards".

**Benefits of Accreditation**

- Accreditation benefits all stake holders. Patients are the biggest beneficiary. Accreditation results in high quality of care and patient safety. The patients get services by credential medical staff. Rights of patients are respected and protected. Patient satisfaction is regularly evaluated.
- The staff in a accredited health care organization are satisfied lot as it provides for continuous learning, good working environment, leadership and above all ownership of clinical processes.
- Accreditation to a health care organization stimulates continuous improvement. It enables the organization in demonstrating commitment to quality care. It raises community confidence in the services provided by the health care organization. It also provides opportunity to healthcare unit to benchmark with the best.
- Finally, accreditation provides an objective system of empanelment by insurance and other third parties. Accreditation provides access to reliable and certified information on facilities, infrastructure and level of care.

Once the organization gets accredited, accreditation is valid for a defined period. NABH conducts a regular surveillance of the accredited organization. The surveillance visit is planned during the 2nd year i.e. after 18 months of grant of accreditation. In addition a surprise visit may be done anytime if there is an adverse complaint by any patient or any adverse report regarding the hospital in media. Hence there is a constant motivation for the hospitals to maintain the standards set up by NABH in order to renew the accreditation

process. There is stimulation for the employees and the management for continuous improvement.

The various standards of N.A.B.H. are-

**Patient Centered Standards**

- Access, Assessment and Continuity of Care (AAC)
- Care of Patient (COP)
- Management of Medication (MOM)
- Patient Right and Education (PRE)
- Hospital Infection Control (HIC)

**Organization Centered Standards**

- Continuous Quality Improvement (CQI)
- Responsibility of Management (ROM)
- Facility Management and Safety (FMS)
- Human Resource Management (HRM)
- Information Management System (IMS)

## 1.2 MEDICAL RECORDS

Medical record is a systematic documentation of a patient's personal and social data, history of his or her ailment, clinical findings, investigations, diagnosis, treatment given, and an account of follow-up and final outcome.

The quality of a patient record depends largely on the individuals making record entries. All healthcare practitioners and others who enter information into patient records must understand the importance of creating complete and accurate records, as well as the legal and medical implications of failing to do so.

A medical record enables healthcare professionals to plan and evaluate a patient's treatment and ensures continuity of care among multiple providers. The quality of care a patient receives depends directly on the accuracy and legibility of the information the medical record contains.

Maintaining a complete record is important not only to comply with licensing and accreditation requirements, but also to enable a healthcare provider to establish that a patient received adequate care.

A patient's medical record serves multiple functions. First, it provides a method of clinical communication and care planning among healthcare practitioners, employers, payers and patients. Second, the medical record indicates the basis for evaluating the adequacy and appropriateness of care. The medical record must include all supporting documentation for the reimbursement of services provided. (i.e., Results from ordered tests including, but not limited to x-rays, labs, communication from other providers involved in the patient's care, etc.) In addition the medical record provides protection of the legal interests of the patient, facility and healthcare practitioners. Finally, the medical record is utilized as clinical data for the purpose of research and education. The medical record also serves as a medicolegal document to protect the physician should medical malpractice be alleged.

The purpose of clinical record is as follows:

- To act as a working document for day to day recording of patient care
- To store a chronological account of the patient's life, illnesses, its context and who did what and to what effect.
- To enable the clinician to communicate with him or herself.
- To aid communication between team members.
- To allow continuity of approach in a continuing illness
- To record any special factors that appear to affect the patient or the patient's response to treatment.
- To record any factors that might render the patient more vulnerable to an adverse reaction to management or treatment
- To record risk assessments to protect the patient and others.
- To record the advice given to general practitioners, other clinicians and other agencies.
- To record the information received from others, including carers
- To store a record to which the patient may have access
- To inform medico-legal investigations

- To inform clinical audit, governance and accreditation
- To inform bodies handling complaints and inquiries
- To inform research
- To inform analysis of critical care
- To allow contributions to national data-sets, morbidity registers, etc.

## 1.3 REVIEW OF LITERATURE

Academy of Medical Royal College has stated the purpose of keeping good medical records as a means to record and communicate information about patients and their care. Further they have stated the pitfalls of poorly kept medical records are increased frustration, debate, clinical misadventure and litigation.

A study of medical records conducted by audit commission of NHS hospitals in England in 1995 found that good record keeping was a low priority in medical care. They also reported that the case-note folders were lacking in order. They recommended setting up a structure for an individual case note file, training the staff to maintain records according to that structure and to regularly monitor the records to see if the structure is being maintained. The commission allocated the responsibility of the contents of the case note file on the staff regularly handling, writing and maintaining them. The various principles defined for a good clinical record included legibility, patient identification, diagnosis, treatment, nursing records, diagnostic tests, and confidentiality amongst others.

In 2008, Health Informatics Unit (HIU), a part of the Clinical Standards Department of the Royal College of Physicians (RCP) framed the standards for the clinical records in hospitals in U.K. The table of standards as given by HIU is given in the Table 1.

**Table 1: Standards in Medical record keeping as given by HIU.**

| Standard | Description |
|---|---|
| 1 | The patient's complete medical record should be available at all times during their stay in hospital |
| 2. | Every page in the medical record should include the patient's name, identification number (NHS number1) and location in the hospital. |

| | |
|---|---|
| 3. | The contents of the medical record should have a standardized structure and layout. |
| 4. | Documentation within the medical record should reflect the continuum of patient care and should be viewable in chronological order. |
| 5. | Data recorded or communicated on admission, handover and discharge should be recorded using a standardized Performa |
| 6. | Every entry in the medical record should be dated, timed (24-hour clock), legible and signed by the person making the entry. The name and designation of the person making the entry should be legibly printed against their signature. Deletions and alterations should be countersigned. |
| 7. | Entries to the medical record should be made as soon as possible after the event to be documented (eg change in clinical state, ward round, investigation) and before the relevant staff member goes off duty. If there is a delay, the time of the event and the delay should be recorded. |
| 8 | Every entry in the medical record should identify the most senior healthcare professional present (who is responsible for decision making) at the time the entry is made. |
| 9 | An entry should be made in the medical record whenever a patient is seen by a doctor. When there is no entry in the hospital record for more than four (4) days for acute medical care or seven (7) days for long-stay continuing care, the next entry should explain why.3 |
| 10 | The discharge record/discharge summary should be commenced at the time a patient is admitted to hospital. |
| 11 | Advance directives, consent and resuscitation status statements must be clearly recorded in the medical record. |

Findlayson & Watson (2004) think that poor quality record-keeping may be so common partly because medical records are generally accorded a low priority and partly because national attempts at standardization are often defeated by the sheer complexity of patient care.

So et.al(2010), study of documentation quality and administrative data validity concluded that poorly documented hospital charts tend to be translated to invalid administrative data

which reduces the communication of clinical information among healthcare providers and poor documentation can contribute to “uncertain” ratings of procedure appropriateness.

According to Joseph Thomas (2009) medical recording needs the concerted effort of a number of people involved in patient care. The doctor is the prime person who has to oversee this process and is primarily responsible for history, physical examination, treatment plans, operative records, consent forms, medications used, referral papers, discharge records, and medical certificates. There should be proper recording of nursing care, laboratory data, reports of diagnostic evaluations, pharmacy records, and billing processes. This means that the paramedical and nursing staff also should be trained in proper maintenance of patient records.

Documentation is the written proof of the interactions between and amongst health care professionals, patients, their families and health care organizations. This entails the administration of tests, procedures, treatments, client education and the result or patients response to diagnostic tests and interventions. Documentation also provides written records that reflect the patient care provided on the basis of assessment data and the patient’s response to the interventions. Data that needs to be documented include the patient’s condition prior to the specific intervention performed, the patients’ response to the intervention and the patient’s outcome (White L., 2003). White L. (2003) further stressed that documentation not only constitutes a legal record, but it also allows for valuable communication amongst other health care team members for the purpose of ensuring continuity of care and evaluating progress toward expected outcomes.

Humphreys T et al (1992) suggested that programmed charts improve documentation by facilitation of the documentation process and allow more time for patient-physician interaction. Quality of documentation alone, however, is not a reliable indicator of patient outcome or of the quality of care received.

Belmin J. et al (1998) also agreed with the use of a structured MR significantly improves the quality of data collection at admission in geriatric units. This improvement appears to be related more to the use of the structured MR than the effect of developing a new tool.

Although a structured admission form is an apparently simple measure to improve data quality, poor motivation, lack of supervision, lack of resources and other factors are conceivably major barriers to their successful use in a Kenyan public hospital setting.

Cheney C, Ramsdell JW (1987) conducted a study to understand the effect of medical records' checklists on implementation of periodic health measures and the data suggested that a physician's use of simple checklists can provide an inexpensive and effective means of improving implementation of medical record keeping.

A report by the United States Joint Commission on Health Care, estimated that about 80% of malpractice claims were lost due to inadequacies in the medical record. Common problems identified included: illegible handwriting; misspellings; use of vague, non-specific terms such as ‘a lot’ or ‘a small amount’; use of abbreviations that appear on a hospital’s ‘do not use’ list; and inappropriate comments that involve finger-pointing or accusations of incompetence. They also reported that the biggest problem is what is not included in the medical record. If it was not documented it was not done.

Biron R(1977), conducted a study on problem-oriented medical records as a training tool for staff and concluded that training, was a valuable way to teach staff not only proper record-keeping but also clinical thinking and logical treatment planning.

For physicians to change their behavior, they must internalize the need for change. One way to do this is to get the physicians to agree to the improvement. In a recent study carried out by Marco and Buchman (2003), surgeons were asked to agree that documentation is important. When surgeons who agreed that documentation is important were compared with those who did not express agreement, those who agreed were more likely to provide the required clinical documentation. Furthermore, they showed improvement in their percentage of cases with the required documentation when compared to themselves over time. Simple strategies such as asking for a private commitment to change can enhance competency with documentation requirements.

Hicks and Gentleman (2003) suggested that ongoing physician education has resulted in more accurate and complete documentation in the medical record.

Margaret Oldfield(2007) in his case study to understand the effect of changing behaviours on improving documentation showed several positive results like, physician behaviour can be modified. He concluded that physicians understand the necessity of accurate documentation and the improved documentation has enhanced the communication among other healthcare team members, improving patient care, as other team members are more aware of the patient's condition and the medical plan of care. The improved documentation is also helps to

move the institution along toward its goal of an integrated patient care record. His case study also reflected that allied healthcare workers are overcoming their fear of making notations in the Progress Notes, which had previously been allocated for physicians only. The health records technicians have progressed in seeking out physicians or the documentation coordinators when they are unsure of the meaning of a particular notation in a chart. Above all else, the project has fostered respect for the role that each employee plays in the clinical record keeping.

Hansebo et al (1999), reported that use of standardized assessment instruments helps in identifying staff needs, problems and resources, and facilitate and improve the quality of documentation. He also confirmed the importance of continuing education and supervision in nursing documentation for development of a reliable source.

In contrast, Socolar et al (1998) suggests that chart audits may not be the best use of resources for trying to improve physician behavior; credits in continuing medical education and use of structured records may be more likely to be beneficial.

## 1.4 RATIONALE

Muller (2001) identified that there are five problem areas with reference to clinical record keeping. These are inadequate, incomplete documentation, absence of documentation, all or part of the clinical record missing, alteration of a record, falsification in the clinical record or even fabrication in the clinical record.

In 1995 the Audit Commission published “Setting the Records Straight”, a study of hospital health records, and reported major problem:

• low status of records departments, with poor facilities for staff and storage of records

• difficulties in retrieving records for consultations

• lack of order and inadequacies of record-keeping within the casenote folder

The rationale for the study stemmed from a need of continuous quality improvement for inpatient record keeping by the organization.

## 1.5 OBJECTIVES

The objective of this study are:

1. To find the adherence by different departments in Sri Balaji Action Medical Institute, of the standards laid down by N.A.B.H regarding the inpatient medical records.
2. To enhance the compliance towards documentation.

# CHAPTER II – METHODS AND DATA

## 2.1 THE RESEARCH DESIGN/ METHODOLOGY:

The study was Interventional in nature.

Criteria were chosen according to NABH standards and a checklist was prepared.

The study was divided into two phases:

1. Pre- interventional – 300 active files from all in-patient departments of the hospital were studied to find the major non- compliances towards NABH standards in record keeping.

   Interventions were targeted towards all stakeholders including the Doctors, Staff Nurses, Dieticians and Front Desk Executives.

The interventions were in the form of:

- Informal interviews with higher authorities which includes Medical Superintendents, Deputy Medical Superintendents and Nursing Superintendents.
- On-site counseling sessions for the old staff
- Training sessions for the new staff
- Regular feedbacks to respective floor administrators and sister in-charges regarding the level of non-compliances
- Open meetings with all stakeholders.

2. Post – interventional – 200 active files from all in-patient departments of the hospital were studied to find the difference in the non compliance rates and to find the impact of the interventions.

## 2.2 STUDY DURATION:

The study was carried out from 4$^{th}$ February 2012 to 31$^{st}$ March 2012.

The study period was divided into pre and post intervention. Though training of the new staff is an ongoing process, counseling sessions of the old staff, followed by informal interviews

with higher officials of the hospital began after 28th February 2012. Thus the period before the 28th February 2012 was regarded as the pre-intervention period.

The period from 5th March 2012 to 31st March 2012 was then regarded as the post-intervention period. During the post-intervention period feedback on the current non-compliances and improvements of the same was provided at an open meeting where staff had a chance to ask questions and give suggestions.

2.3 **INCLUSION CRITERIA:**

Active case records of patients in all inpatient areas including the wards and critical areas.

**2.4 EXCLUSION CRITERIA:**

The following files were excluded from the study:

- Files of patients admitted for less than 24 hours.
- Files of day care patients.

**2.5 SAMPLE SIZE:**

1. The active inpatient files were randomly selected in all inpatient areas including the wards and the critical care areas except the excluded areas.
2. Patient files from different specialties were reviewed for the purpose of the study.
3. Patient files of 575 admitted patents were reviewed on the basis of the predefined criteria. However the patient files for which all the variables could not be recorded or data with incomplete information were discarded. So the data for 500 in-patient active files were analyzed for this study.
4. For the initial phase of the study were no intervention were 300 patient files were reviewed.
5. 200 patient files were reviewed in the post – intervention phase of the study.

**2.6 VARIABLES OF THE STUDY:**

As per NABH standards predefined criteria was set on the basis of which the active medical records were reviewed.

The criteria which were being met uniformly in the whole file were taken as a positive. A

criterion which was not being met uniformly across the whole file was taken as not being met. In this was the data was entered in Microsoft Excel 2007, after proper coding the responses. The data was analyzed criteria wise and department wise.

A criteria was said to be met if it fulfilled the following conditions

**Table 2: Variables**

| CATEGORY | CODE | CRITERIA |
|---|---|---|
| INITIAL ASSESSMENT | IA-1 | Request for admission form – fully filled prior to admission and attached in the patient file |
| | IA-2 | Admission form – fully filled admission sheet attached in the patient file. |
| | IA-3 | Inpatient history sheet – fully filled, timed, dated and signed history sheet within 1hr of admission to the hospital. |
| | IA-4 | Nursing assessment – nursing assessment sheet filled within 24hrs of admission. |
| | IA-5 | Nursing assessment sheet, clearly indicating vulnerability of the patient. |
| | IA-6 | Plan of care – the entire treatment plan is filled within 24hrs of admission to the hospital and countersigned by consultant. |
| | IA-7 | Specimen signature sheet – primary consultant to sign the specimen signature sheet. |
| | IA-8 | Nutritional assessment – fully filled nutritional sheet within 24hrs of admission to the hospital. |
| DAILY NOTES | DN-1 | Progress notes with dates and timings – all the progress notes are marked with date and time. |
| | DN-2 | All sheets mention patient identification number or name – all the sheets (on which any information regarding the patient is there) is identified with patient sticker. |
| | DN-3 | All entries signed – all the entries in the patient file are signed. |
| | DN-4 | Clear who has signed the entries everyday – all the Doctor's signatures in the file are properly named. |

| | | |
|---|---|---|
| | DN-5 | Progress notes recorded daily – there is altleast one noting regarding the condition of the patient in every 24 hrs. |
| | DN-6 | Inpatient medication in one uniform location – all the patient medication is written in the physician order sheet in capital letters with no error prone abbreviations and signed by the doctor. |
| | DN-7 | Route of administration, dose and frequency of dose/ any other instruction – all the orders regarding the medicines contain all details regarding the route of administration , when to give, and how many times to be given including any other special instructions. |
| | DN-8 | Referral sheet – referral sheet used in case of any cross referral |
| | DN-9 | Referral sheet duly timed, dated and named. |
| SURGERY | SU-1 | Anesthetic record – a fully documented anesthetic record in case of patient under-went anesthesia. |
| | SU-2 | Operation notes– all the surgery notes have either being written/countersigned by the surgeon and timed |
| | SU-3 | Nursing preoperative checklist – the nursing preoperative checklist has been marked before the surgery and countersigned by doctor. |
| | SU-4 | Post-operative charting – the post operative chart fully filled and signed by the anesthetist. |
| | SU-5 | Surgical Safety Checklist – the surgical safety checklist duly timed and filled at all levels and signed by anesthetist. |
| | SU-6 | SSI Prevention Bundle – to be filled in OT and signed by anesthetist and then filled in wards after dressing. |
| CONSENTS | CON-1 | Consent taken – consent has been taken. |
| | CON-2 | General Consent – General consent for admission and treatment in the hospital has been taken according to the laws relating to the consent. |

| | | |
|---|---|---|
| | CON-3 | Name and sign of the patient – consent of treatment has been given by the patient him/herself if above 18yrs of age, in senses not lunatic. In case any of the above condition are not met, the consent has been taken from the legal hier of the patient and countersigned by front desk executive |
| | CON-4 | Anesthetic and Surgeon consent form – Specific informed consent in case of any surgical procedure and anesthesia has been taken. |
| | CON-5 | Name of anesthetist mentioned – the name of the anesthetist is mentioned and signed. |
| | CON-6 | Name of surgeon mentioned – the name of the surgeon authorized to the procedure is mentioned and signed. |
| | CON-7 | Has name and signature of patient – the patient undergoing the surgery has signed the anesthetist and surgeon consent form if he is legally capable to do so or his legal guardian has signed the consent form. |
| | CON-8 | Consent for Cardiac Procedures – consent has been taken for any cardiac procedure and is duly signed and dated by patient/guardian and doctor. |

**2.7 SAMPLE COLLECTION TOOLS:**

Pre formed checklist on the basis of the criteria.

**2.8 TOOLS FOR ANALYSIS:**

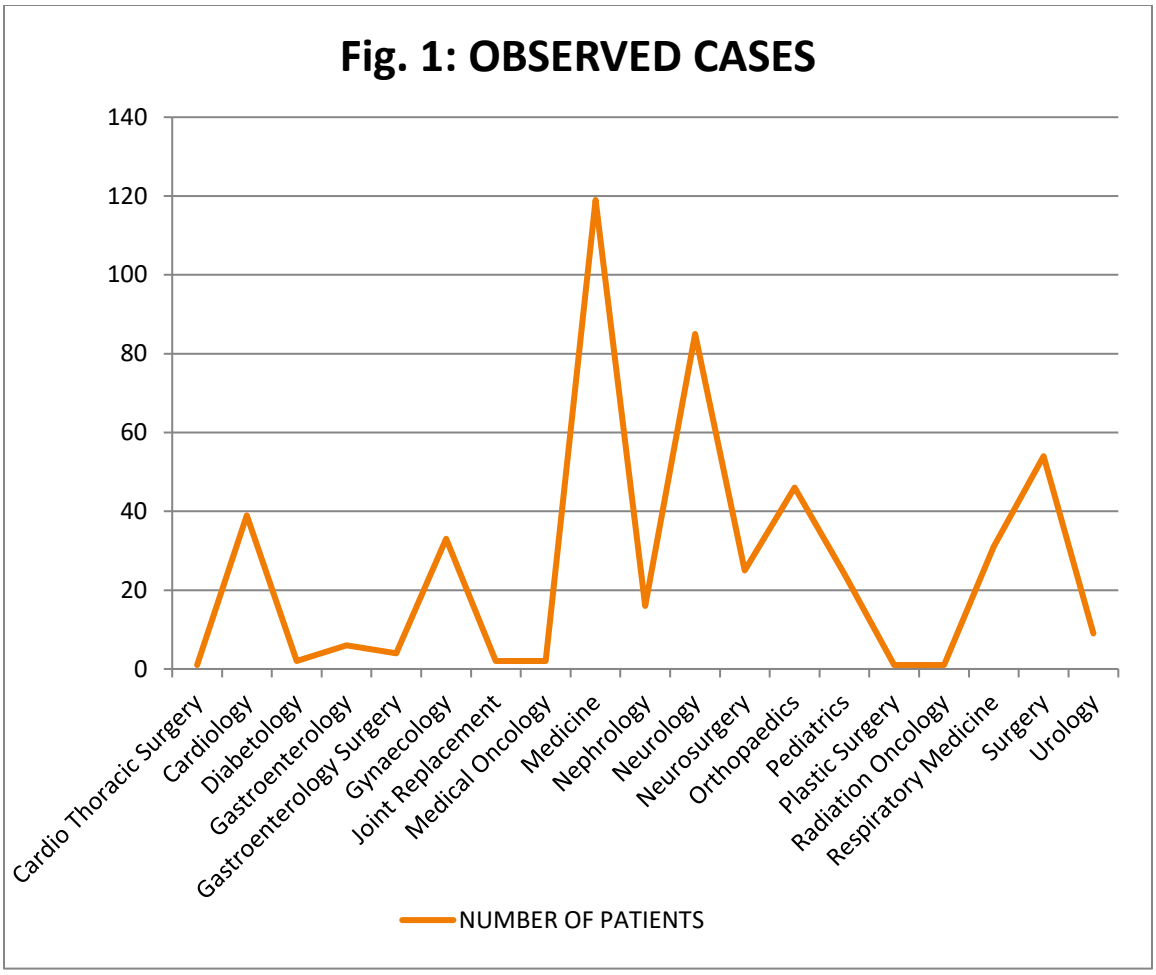
The Data so collected was fed into Microsoft Excel 2010, and the analysis was done using Excel 2010.

## CHAPTER III – RESULTS AND FINDINGS

The number of cases analyzed from different specialties are as follows:

**Table 3: Observed Cases**

| S.NO. | SPECIALTY | NUMBER OF CASES |
|---|---|---|
| 1 | Cardio Thoracic Surgery | 1 |
| 2 | Cardiology | 39 |
| 3 | Diabetology | 2 |
| 4 | Gastroenterology | 6 |
| 5 | Gastroenterology Surgery | 4 |
| 6 | Gynaecology | 33 |
| 7 | Joint Replacement | 2 |
| 8 | Medical Oncology | 2 |
| 9 | Medicine | 119 |
| 10 | Nephrology | 16 |
| 11 | Neurology | 85 |
| 12 | Neurosurgery | 25 |
| 13 | Orthopaedics | 46 |
| 14 | Pediatrics | 24 |
| 15 | Plastic Surgery | 1 |
| 16 | Radiation Oncology | 1 |
| 17 | Respiratory Medicine | 31 |
| 18 | Surgery | 54 |
| 19 | Urology | 9 |




The Figure 1, depicts the various specialties for which the in-patients case records were reviewed during the study. The maximum number of case files that were examined was from Medicine specialty followed by Neurology.

The predefined criteria were divided into 4 broader categories depending:

1. Initial Assessment
2. Daily Notes
3. Surgery
4. Consents

The first phase of the study where no interventions were made showed that the major non compliances were found in the completeness of referral sheet with 71.84% of non compliance, followed by inpatient history sheet being fully filled, timed, dated and signed history sheet within 1hr of admission to the hospital with 63.67% non compliance and

Specimen signature sheet to be signed by primary with 61.67% non compliance and thereof. Based on these non compliances the concerned stakeholders were targeted for interventions with an aim to improve upon these non-compliances.

| Table 4: PRE - INTERVENTION (SAMPLE SIZE = 300) | | | | | |
|---|---|---|---|---|---|
| **CATEGORY** | **CRITERIA** | **YES** | **NO** | **NA** | **%age Of NC** |
| **INITIAL ASSESSMENT** | request for admission | 274 | 26 | 0 | 8.67% |
| | admission form | 268 | 32 | 0 | 10.67% |
| | IP history sheet | 109 | 191 | 0 | 63.67% |
| | nursing assessment | 287 | 13 | 0 | 4.33% |
| | Vulneralability | 300 | 0 | 0 | 0.00% |
| | POC | 164 | 131 | 0 | 44.41% |
| | specimen sign | 115 | 185 | 0 | 61.67% |
| | nutritional assessment | 247 | 53 | 0 | 17.67% |
| **DAILY NOTES** | progress notes | 132 | 168 | 0 | 56.00% |
| | patient sticker | 289 | 11 | 0 | 3.67% |
| | signed entries | 300 | 0 | 0 | 0.00% |
| | named entries | 154 | 146 | 0 | 48.67% |
| | atleast one noting in 24hrs | 300 | 0 | 0 | 0.00% |
| | POS | 196 | 104 | 0 | 34.67% |
| | details of medication | 300 | 0 | 0 | 0.00% |
| | referral sheet used | 164 | 10 | 126 | 5.75% |
| | fully filled referral sheet | 49 | 125 | 126 | 71.84% |
| **SURGERY** | anesthetist record | 110 | 10 | 180 | 8.33% |
| | OT notes | 103 | 17 | 180 | 14.17% |
| | Pre-op checklist | 96 | 24 | 180 | 20.00% |
| | Post-op charting | 68 | 52 | 180 | 43.33% |
| | surgical safety checklist | 55 | 65 | 180 | 54.17% |
| | SSI | 52 | 68 | 180 | 56.67% |
| **CONSENTS** | Consent taken | 300 | 0 | 0 | 0.00% |
| | General consent | 299 | 1 | 0 | 0.33% |
| | GC- named & signed | 211 | 89 | 0 | 29.67% |
| | Anesthetist & Surgeon consent | 120 | 0 | 180 | 0.00% |
| | Anesthetist sign & name | 106 | 14 | 180 | 11.67% |
| | Surgeon sign & name | 71 | 49 | 180 | 40.83% |
| | patient sign & name | 113 | 7 | 180 | 5.83% |
| | Cardiology consent | 18 | 8 | 274 | 30.77% |

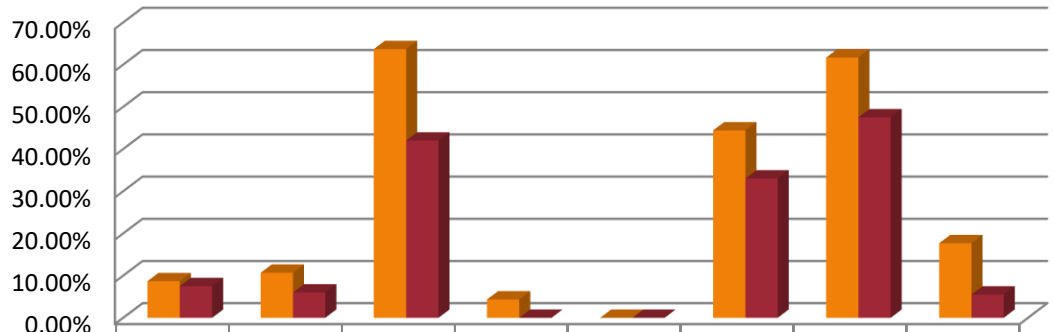
The Resident Medical Officers were intervened for improvements in documentation of initial assessment of the patient, in-patient history, plan of care, progress notes with signed and named entries and physician order sheet. The nurses were trained and counseled for rectification of documentation with regards to nursing assessment, patient identification stickers and the admission desk staff for enhancement of documentation of admission forms, request for admission forms and general consent. Surgeons and Anesthetist were counseled for documentation related issues concerned with surgical procedures, use of anesthesia and their respective consents. Further Dieticians were targeted for improvement in documentation of nutritional assessment.

The second phase of the study included the scrutinization of active in-patient files to check for the improvements in the level of compliance for in-patient record keeping. The major non-compliances found in the pre-intervention phase were the primary area of focus during this phase of data collection. The randomly selected case files were closely examined for all criteria and most importantly the chief non-compliants. Completeness of referral sheet which was found to have the highest level of non-compliance has shown a marked improvement with the non-compliance dropping down to 37.84%. Non-compliance in relation to the in-patient history was found to drop down to 42%. Further the non-compliance with regard to specimen signature also l showed little improvements.

| Table 5: POST - INTERVENTION (SAMPLE SIZE = 200) | | | | | |
|---|---|---|---|---|---|
| **CATEGORY** | **CRITERIA** | **YES** | **NO** | **NA** | **%age Of NC** |
| **INITIAL ASSESSMENT** | request for admission | 185 | 15 | 0 | 7.50% |
| | admission form | 188 | 12 | 0 | 6.00% |
| | IP history sheet | 116 | 84 | 0 | 42.00% |
| | nursing assessment | 200 | 0 | 0 | 0.00% |
| | vulneralability | 200 | 0 | 0 | 0.00% |
| | POC | 134 | 66 | 0 | 33.00% |
| | specimen sign | 105 | 95 | 0 | 47.50% |
| | nutritional assessment | 189 | 11 | 0 | 5.50% |
| **DAILY NOTES** | progress notes | 142 | 58 | 0 | 29.00% |
| | patient sticker | 195 | 5 | 0 | 2.50% |
| | signed entries | 200 | 0 | 0 | 0.00% |
| | named entries | 159 | 41 | 0 | 20.50% |
| | atleast one noting in 24hrs | 200 | 0 | 0 | 0.00% |
| | POS | 164 | 36 | 0 | 18.00% |
| | details of medication | 198 | 2 | 0 | 1.00% |
| | referral sheet used | 108 | 3 | 89 | 2.70% |
| | fully filled referral sheet | 69 | 42 | 89 | 37.84% |
| **SURGERY** | anesthetist record | 69 | 0 | 131 | 0.00% |
| | OT notes | 63 | 6 | 131 | 8.70% |
| | Pre-op checklist | 60 | 9 | 131 | 13.04% |
| | Post-op charting | 51 | 18 | 131 | 26.09% |
| | surgical safety checklist | 46 | 23 | 131 | 33.33% |
| | SSI | 43 | 26 | 131 | 37.68% |
| **CONSENTS** | Consent taken | 200 | 0 | 0 | 0.00% |
| | General consent | 200 | 0 | 0 | 0.00% |
| | GC- named & signed | 169 | 31 | 0 | 15.50% |
| | Anesthetist & Surgeon consent | 69 | 0 | 131 | 0.00% |
| | Anesthetist sign & name | 69 | 0 | 131 | 0.00% |
| | Surgeon sign & name | 50 | 19 | 131 | 27.54% |
| | patient sign & name | 55 | 14 | 131 | 20.29% |
| | Cardiology consent | 11 | 1 | 188 | 8.33% |

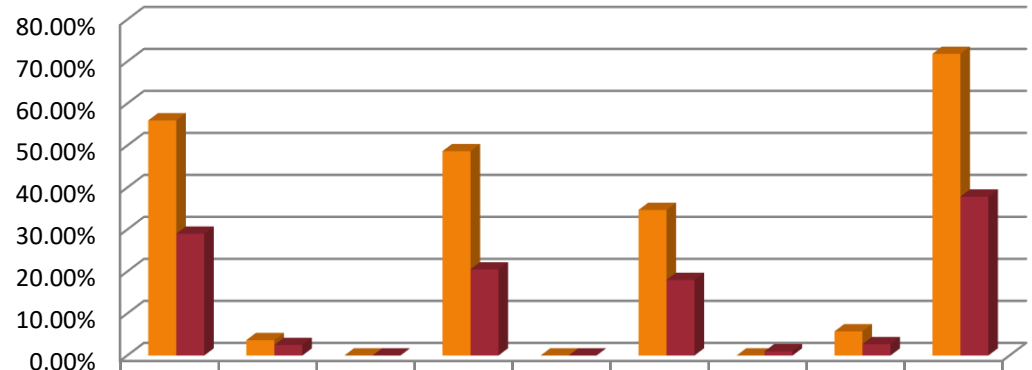
Figure 2 depicts the percentage of noncompliance of pre-intervention phase in comparison with the post-intervention phase in relation to criteria under the category of initial assessment.

## Fig 2: Percentage Of Non Compliance - Initial Assessment

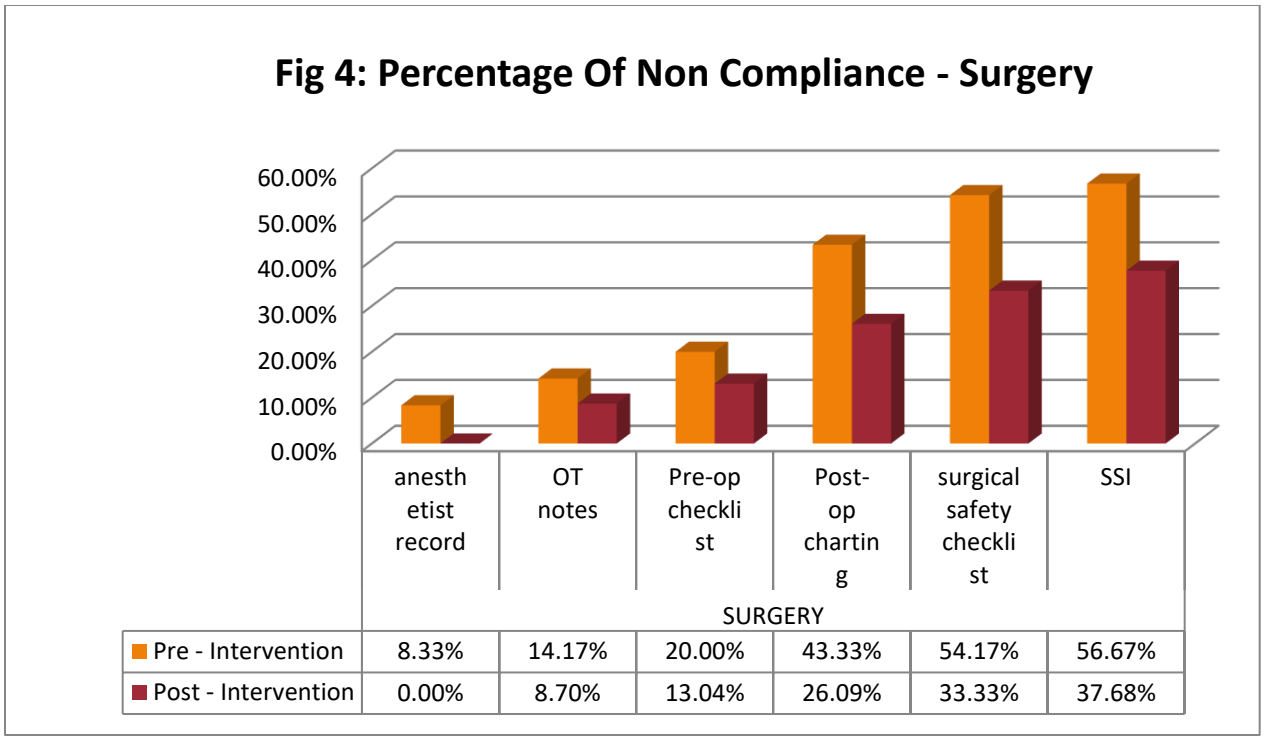



| | request for admission | admission form | IP history sheet | nursing assessment | vulneral ability | POC | specimen sign | nutritional assessment |
|---|---|---|---|---|---|---|---|---|
| | INITIAL ASSESSMENT | | | | | | | |
| Pre - Intervention | 8.67% | 10.67% | 63.67% | 4.33% | 0.00% | 44.41% | 61.67% | 17.67% |
| Post - Intervention | 7.50% | 6.00% | 42.00% | 0.00% | 0.00% | 33.00% | 47.50% | 5.50% |

## Fig 3: Percentage Of Non Compliance - Daily Notes




| | progress notes | patient sticker | signed entries | named entries | atleast one noting in 24hrs | POS | details of medication | referral sheet used | fully filled referral sheet |
|---|---|---|---|---|---|---|---|---|---|
| | DAILY NOTES | | | | | | | | |
| Pre - Intervention | 56.00% | 3.67% | 0.00% | 48.67% | 0.00% | 34.67% | 0.00% | 5.75% | 71.84% |
| Post - Intervention | 29.00% | 2.50% | 0.00% | 20.50% | 0.00% | 18.00% | 1.00% | 2.70% | 37.84% |



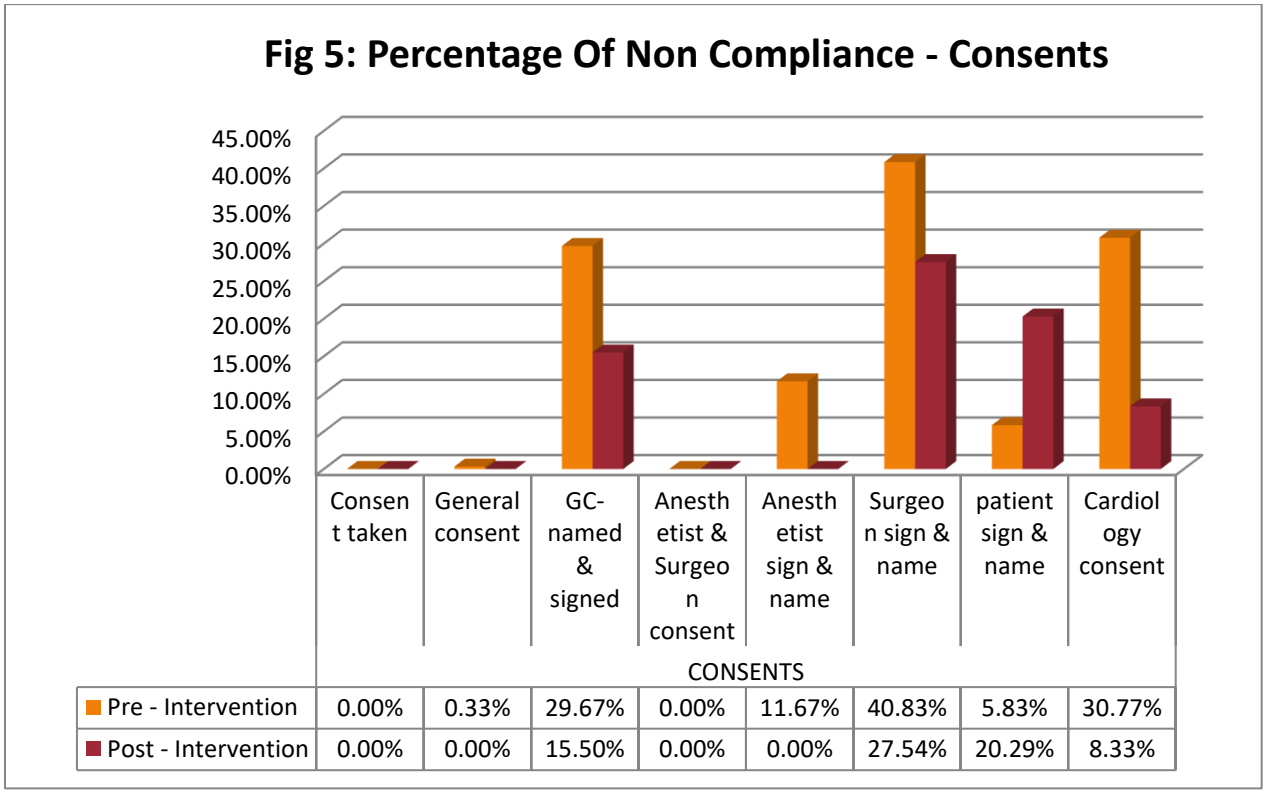




Figure 3, 4 and 5 displays the percentage of noncompliance of pre-intervention phase in comparison with the post-intervention phase in relation to criteria under the category of Daily Notes, Surgery and Consents respectively.

The various criteria to which there was full adherence were identified as:

1. Nursing assessment sheet is filled within 24hrs of admission in 100% of files.
2. Nursing assessment sheet clearly indicating vulnerability of the patient in 100% of files.
3. All the sheets (on which any information regarding the patient is there) are identified with patient sticker in 100% of files.
4. All the entries in the patient file are signed in 100% of files.
5. There is at least one noting regarding the condition of the patient in every 24 hrs in 100% of files reviewed.
6. All the orders regarding the medicines contain all details regarding the route of administration, when to give, and how many times to be given including any other special instructions in written in 100% of files.
7. A fully documented anesthetic record in case of patient under-went anesthesia was found in 100% of files.
8. Consent has been taken in 100% of files.
9. General Consent – General consent for admission and treatment in the hospital has been taken according to the laws relating to the consent in 100% of files.
10. Anesthetic and Surgeon consent form – Specific informed consent in case of any surgical procedure and anesthesia has been taken in 100% of files..
11. Name of anesthetist mentioned – the name of the anesthetist is mentioned and signed in 100% of files.
12. Referral sheet used in case of any cross referral in 97.2% files.
13. Admission form is fully filled admission sheet attached in the patient file with non-compliance of 94%.
14. Nutritional assessment is fully filled nutritional sheet within 24hrs of admission to the hospital 94.5% of files reviewed.
15. Request for admission form is fully filled prior to admission and attached in the patient file with non-compliance of 92.5%.
16. All the surgery notes have either being written/countersigned by the surgeon and timed in 91.30% of files.

17. Nursing preoperative checklist – the nursing preoperative checklist has been marked before the surgery and countersigned by doctor in 86.95% of files.
18. Consent for Cardiac Procedures – consent has been taken for any cardiac procedure and is duly signed and dated by patient/guardian and doctor.

The criteria which specifically need improvement are:

1. Specimen signature sheet to be filled primary consultant with 47.50% non-compliance.
2. Inpatient history sheet is fully filled, timed, dated and signed history sheet within 1hr of admission to the hospital with non-compliance of 42%.
3. Plan of care is filled within 24hrs of admission to the hospital and countersigned by consultant with non-compliance of 33%.
4. All the progress notes are marked with date and time with non compliance of 29%.
5. All the Doctor's signatures in the file are properly named with non-compliance of 20.50%.
6. All the patient medication is written in the physician order sheet in capital letters with no error prone abbreviations and signed by the doctor with non-compliance of 18%.
7. Referral sheet duly timed, dated and named with non compliance of 37.84%
8. Post-operative charting – the post operative chart fully filled and signed by the anesthetist with non-compliance of 26.09%.
9. Surgical Safety Checklist – the surgical safety checklist duly timed and filled at all levels and signed by anesthetist in 33.3% of files.
10. SSI Prevention Bundle – to be filled in OT and signed by anesthetist and then filled in wards after dressing in 37.68% of files.
11. Name and sign of the patient – consent of treatment has been given by the patient him/herself if above 18yrs of age, in senses not lunatic. In case any of the above condition are not met, the consent has been taken from the legal hier of the patient and countersigned by front desk executive in 15.50% of files.
12. Name of surgeon mentioned – the name of the surgeon authorized to the procedure is mentioned and signed in 27.54% of files.

13. Has name and signature of patient – the patient undergoing the surgery has signed the anesthetist and surgeon consent form if he is legally capable to do so or his legal guardian has signed the consent form in 20.29% of files.

## CHAPTER IV: DISCUSSION

Documentation is of critical importance in a hospital where the patient is constantly subjected to interventions. Failing to document may jeopardize the continuity of patient care and the safety of patients. Furthermore, the continuity of care can seriously be compromised when failing to document all patient data related to the phases of the nursing process namely assessment, diagnosis, planning, implementation and evaluation.

Findlayson & Watson (2004), So et.al (2010) stressed on the need of documentation of medical records and its standardization to improve upon the quality of the same.

Though the results of this study have shown initial improvements in the level of non-compliances, but improvements in the compliances relating to initial assessment, progress notes, referral sheets, plan of care, surgical safety checklist, post-operative charting, surgeon signature on consents requires more attention, cooperation and commitment by the concerned stakeholders.

According to Joseph Thomas (2009) medical recording needs the concerted effort of a number of people involved in patient care and considered doctor as a prime person responsible for history, physical examination, treatment plans, operative records, consent forms, medications used, referral papers, discharge records, and medical certificates and also reflected the need of training the paramedical and nursing staff in proper maintenance of patient records. The results of the study confirms that there is a need of joint effort from all the people involved in patient which includes doctors, staff nurses, dieticians and front office staff.

In contrast with Humphreys T et al (1992) Belmin J. et al (1998) ,Cheney C, Ramsdell JW (1987) who concluded the importance of structured format in medical record keeping, the results of the study state is not alone important for improving documentation of clinical records.

Further the result of the study acknowledges the usefulness of training, ongoing education and change in behavior of professionals is required for improvements in documentation which concedes with the conclusion made by Biron R(1977), Hicks and Gentleman (2003).

Marco and Buchman (2003), recommended the use of simple strategies such as asking for a private commitment to change can enhance competency with documentation requirements which also proved by the results of the study.

Hansebo et al (1999), confirmed the importance of supervision in documentation for as a reliable source for improvement which also played a major role in this study. The supervision can be in the form of checklist as used in the study.

# CHAPTER V: RECOMMENDATIONS

Some of the ways the medical record keeping in the case of inpatient case files can be improved are-

1. Increased Reliance on technology:
    - The Doctors and Nurses should be provided a click in the H.I.M.S. so that at the time of initial assessment they can punch at date and time of initial assessment is recorded.
    - When the Doctors orders and Prescriptions are entered in the H.I.M.S, it will automatically enter the date and time of the noting of the progress notes.
    - Every Doctor can have a unique Identity similar to email address with a password, so that the identity of the doctor gets automatically recorded when the progress notes and daily orders are given.
    - A computerized system of daily orders will also minimize medication errors because of illegible handwriting.
    - The system can be developed to sound a alarm if two mutually interacting medicine are prescribed to the same patient or a medicine which does not suit the particular patient is given to him.
    - A System of electronic daily record keeping will also cut costs in the form of manpower and space required to maintain the records after the patient is discharged.

2. A regular monthly check of random small but fixed number of in-patient case files , followed by a token of appreciation for the unit found keeping the files properly , can encourage proper keeping of records

# CHAPTER VI: CONCLUSION

Consistent and complete documentation in the medical record is an essential component of quality patient care. A joint effort from all the people involved in patient care is necessary for improvements in compliances of in-patient record keeping as per NABH standards.

This study concludes the need for training, ongoing education, cooperation among stakeholders in reforming documentation compliances.

Further a constant supervision with the help of checklist can help in maintaining the requisite standards.

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## APPENDIX I

SRI BALAJI
ACTION MEDICAL INSTITUTE

## ACTIVE MEDICAL RECORD AUDIT SHEET

**PASTE STICKER HERE**

| CRITERIA | YES | NO | NA |
|---|---|---|---|
| Request for admission form – fully filled prior to admission and attached in the patient file | | | |
| Admission form – fully filled admission sheet attached in the patient file. | | | |
| Inpatient history sheet – fully filled, timed, dated and signed history sheet within 1hr of admission to the hospital. | | | |
| Nursing assessment – nursing assessment sheet filled within 24hrs of admission. | | | |
| Nursing assessment sheet, clearly indicating vulnerability of the patient. | | | |
| Plan of care – the entire treatment plan is filled within 24hrs of admission to the hospital and countersigned by consultant. | | | |
| Specimen signature sheet – primary consultant to sign the specimen signature sheet. | | | |
| Nutritional assessment – fully filled nutritional sheet within 24hrs of admission to the hospital. | | | |
| Progress notes with dates and timings – all the progress notes are marked with date and time. | | | |
| All sheets mention patient identification number or name – all the sheets (on which any information regarding the patient is there) is identified with patient sticker. | | | |
| All entries signed – all the entries in the patient file are signed. | | | |
| Clear who has signed the entries everyday – all the Doctor's signatures in the file are properly named. | | | |
| Progress notes recorded daily – there is altleast one noting regarding the condition of the patient in every 24 hrs. | | | |
| Inpatient medication in one uniform location – all the patient medication is written in the physician order sheet in capital letters with no error prone abbreviations and signed by the | | | |

| | | | |
|---|---|---|---|
| doctor. | | | |
| Route of administration, dose and frequency of dose/ any other instruction – all the orders regarding the medicines contain all details regarding the route of administration , when to give, and how many times to be given including any other special instructions. | | | |
| Referral sheet – referral sheet used in case of any cross referral | | | |
| Referral sheet duly timed, dated and named. | | | |
| Anesthetic record – a fully documented anesthetic record in case of patient under-went anesthesia. | | | |
| Operation notes– all the surgery notes have either being written/countersigned by the surgeon and timed | | | |
| Nursing preoperative checklist – the nursing preoperative checklist has been marked before the surgery and countersigned by doctor. | | | |
| Post-operative charting – the post operative chart fully filled and signed by the anesthetist. | | | |
| Surgical Safety Checklist – the surgical safety checklist duly timed and filled at all levels and signed by anesthetist. | | | |
| SSI Prevention Bundle – to be filled in OT and signed by anesthetist and then filled in wards after dressing. | | | |
| Consent taken – consent has been taken. | | | |
| General Consent – General consent for admission and treatment in the hospital has been taken according to the laws relating to the consent. | | | |
| Name and sign of the patient – consent of treatment has been given by the patient him/herself if above 18yrs of age, in senses not lunatic. In case any of the above condition are not met, the consent has been taken from the legal hier of the patient and countersigned by front desk executive | | | |
| Anesthetic and Surgeon consent form – Specific informed consent in case of any surgical procedure and anesthesia has been taken. | | | |
| Name of anesthetist mentioned – the name of the anesthetist is mentioned and signed. | | | |
| Name of surgeon mentioned – the name of the surgeon authorized to the procedure is mentioned and signed. | | | |
| Has name and signature of patient – the patient undergoing the surgery has signed the anesthetist and surgeon consent form if he is legally capable to do so or his legal guardian has signed the consent form. | | | |
| Consent for Cardiac Procedures – consent has been taken for any cardiac procedure and is duly signed and dated by patient/guardian and doctor. | | | |