

Clinical Audit of Medical Records -A Case Study in Tertiary Care Hospital of Goa, India (2014)

Abstract

Quality and cost are two important issues in medical care. Clinical audits are the tools for improving quality in healthcare provided by hospitals. Clinical audit is the post mortem (depends on historical records) of clinical inputs and outputs to evaluate the quality of medical care by physicians and healthcare personnel in the hospital. Involvement of clinical staff is crucial for this quality effort. This study focuses on Clinical audit in a tertiary care hospital. The study checks the compilation of manual records on paper as well as electronic records in Hospital Information System (HIS) by the clinicians. The study was conducted in six departments of a tertiary care hospital for the duration of four months. It was observed that in few areas of Medical records, Clinicians are not filling the required details. These records help the patient and clinician to cross check the course of treatment underwent by the patient during their stay in the hospital. The study concluded that Orthopaedics department had maximum compliance and dental had the minimum compliance among the six departments. Recommendations include the instructions and training to medical staff periodically to reduce such gaps discovered in clinical audit to improve the quality of medical care and also to reduce litigations by the patients.

Keywords: Clinical Audit, Medical Records Department, tertiary care hospital, Quality in hospital, Electronic Health Records.

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Introduction

The hospitals are the healthcare organizations which provide medical care in the form of diagnosis and treatment. Good medical care needs maintenance of complete and accurate medical records. This need is generally enforced as a licensing or certification prerequisite for hospital care providers. There is a separate department in medium sized and big hospitals as Medical Records Department (MRD). The medical records can be stored manually and electronically. Electronic health records (EHR) are available as a module in hospital information system (HIS). HIS is the information system in hospital which links clinical and non-clinical departments. Clinical audit is the post-mortem analysis of medical care provided by clinicians. The clinical audit is done with the help of manual and electronic records of MRD department in a hospital. In recent years, clinical audit has become an important tool to improve quality of all types of health services. The Department of Health (1990) outlined the requirement for all doctors to participate in audit and throughout the 1990s this expectation expanded to include clinicians of all professions. There are several points which are crucial to carrying out successful clinical audit: careful planning; setting clear and measurable standards; attempting to set standards on the basis of evidence; taking a multi-disciplinary approach; if questionnaires are to be used, ensuring the responses can be clearly interpreted and analysed; being clear about methods of analysis when planning a project; and avoiding complicated projects – simple ones usually achieve the most and are easiest to carry out (Kirsty, MacLean and Claire, 1999). Consumer audit has developed as a practical way to elicit opinions so as to optimise outcomes (Dennis, 1995). To audit the records a tool was prepared and the complete documentation process of the concerned specialities was studied. All the important details were taken care of while making the tool. The clinical papers that went in to each patient admission, to their operation details, paper work during their stay and discharge was understood. The Universal Toolkit has been developed to support all urgent and emergency care providers in delivering effective clinical audit. It set out seven steps which will enable them to maximise the opportunities the audit

provides for continuous improvement in the quality of the service they provide: Identify the role of the clinical audit within the organisation; Define the patient pathway; Define the audit criteria; Define the audit tool; Conduct the audit; Incorporate learning from other aspects of the service; and Repeat the audit cycle (Royal College of General Practitioners, 2011). The gap between the criteria and the assessed performance provides guidance for priority improvement strategies (National Institute for Health and Clinical Excellence, 2002 and Perry-Woodford, 2008). Although medical audits pre-date clinical governance, clinical audits are seen as an important tool in the clinical governance 'tool kit' (Braithwaite and Travaglia, 2008; Park, McAlaney and Connolly, 2008; Mitchell, et al, 2008; Houghton, et al, 1999; and Cowan, 2002). Most clinical audits are planned in advance; some healthcare services have introduced the concept of 'random safety audits'. In the study reviewed, the use of these audits (conducted during grand rounds with immediate feedback provided) was shown to significantly improve the rate of compliance with infection control standards (Lee, 2009). One method suggested for improving the reliability of outcomes is for re-audits to be conducted periodically (Snooks, 2005). The purpose of clinical audits is essentially to improve the quality of healthcare services by systematically reviewing the care provided against set criteria. The gap between the criteria and the assessed performance provides guidance for priority improvement strategies (National Institute for Health and Clinical Excellence, 2002 and Perry-Woodford, 2008). Although medical audits pre-date clinical governance, clinical audits are seen as an important tool in the clinical governance tool kit (Braithwaite and Travaglia, 2008; Park, McAlaney and Connolly, 2008; Mitchell, et al, 2008; Houghton, et al, 1999; and Cowan, 2002). Most clinical audits are planned in advance some healthcare services have introduced the concept of 'random safety audits'. In the study reviewed, the use of these types of audits conducted during grand rounds with immediate feedback provided were shown to significantly improve the rate of compliance with infection control standards (Lee, 2009). One method suggested for improving the reliability of outcomes is for re-audits to be conducted periodically (Snooks, 2005). A systematically conducted audit exercise on prescription orders of resident doctors in psychiatry. Study demonstrates the possibility of conducting clinical audits in psychiatric and other medical settings in India with the available resources. There is a need to create more awareness in the trainees towards legibility and correctness of spelling of drug as well as review of treatment and stating the name of prescribing doctor (Chaturvedi, et al, 2008). The legibility as well as correctness of drug spellings needs a special mention, as it decides whether nursing staff is able to identify the drug accurately or not. This is a greater cause of concern in India due to ample availability of similar sounding generic and trade names of entirely different drugs (Rataboli and Garg, 2005). In a previous study, legibility was 90

percent or above only in all audits of the cycle with improvement in later audits (Ved and Coupe, 2007). The concept of resolving the issues of healthcare industry could be done by analyzing the results based on the practical measures taken in view of the issues statistically. Only a comprehensive, coercive and integral team approach by all professionals, surgeons, audiologists, physicians, psychologists and other units can yield a productive outcome (Kameswaran, et al, 2006). Patel, et al, 2005 found that there is a need for improvement in prescription patterns; because regarding it no study has been conducted in India. Internationally, at one Chicago county hospital, 40% of the patients planned for chemo-radiotherapy did not receive the treatment course (Patel et al., 2008). A retrospective study from an Asian country found the rate of 63% for curative RT (Bhatt, et al., 2009). The universal toolkit has been developed to support all urgent and emergency care providers in delivering effective clinical audit. It set out seven steps which will enable them to maximise the opportunities the audit provides for continuous improvement in the quality of the service they provide: identify the role of the clinical audit within the organisation; define the patient pathway; define the audit criteria; define the audit tool; conduct the audit; Incorporate learning from other aspects of the service; and Repeat the audit cycle (Royal College of General Practitioners, 2011). Audit gives information about patient care related to radiotherapy process, the waiting time for radiotherapy, its effect on overall treatment time, intention of treatment, compliance to radiotherapy, and its integration with other anticancer modalities. Thus, it has the potential to improve radiotherapy practice in developing countries and better the treatment outcomes (Kaur, et al, 2013). In recent years, clinical audit has become an important part of all health services. The Department of Health, London, in year of 1990 outlined the requirement for all doctors to participate in audit and throughout the 1990s this expectation expanded to include clinicians of all professions. The importance of clinical audit is highlighted in the recent White Paper the New NHS: Modern, Dependable (Department of Health, 1997) and will gain increasing importance as clinical governance is implemented. There are several points which are crucial to carrying out successful clinical audit: careful planning; setting clear and measurable standards; attempting to set standards on the basis of evidence; taking a multi-disciplinary approach; if questionnaires are to be used, ensuring the responses can be clearly interpreted and analysed; being clear about methods of analysis when planning a project; and avoiding complicated projects – simple ones usually achieve the most and are easiest to carry out (Kirsty, MacLean and Claire, 1999). Consumer audit has developed as a practical way to elicit opinions so as to optimise outcomes (Dennis, 1995). The age of information technology, enforcing the healthcare to have clinical audit at every level of information movement to perform better next time. Present literature review found significant scope of clinical audit in healthcare industry. No such study has

been in medical records department in hospitals in Indian hospitals makes a reasonable rationale for this study as is evident from the search of more than 100 sources of literature review on this topic from managerial perspective.

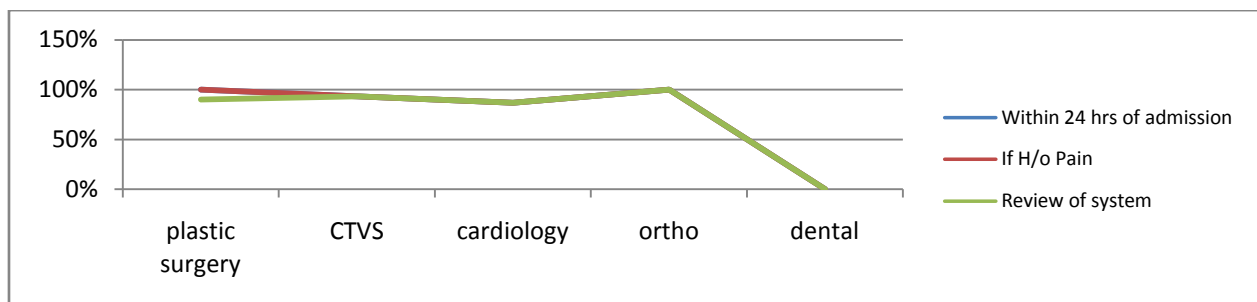
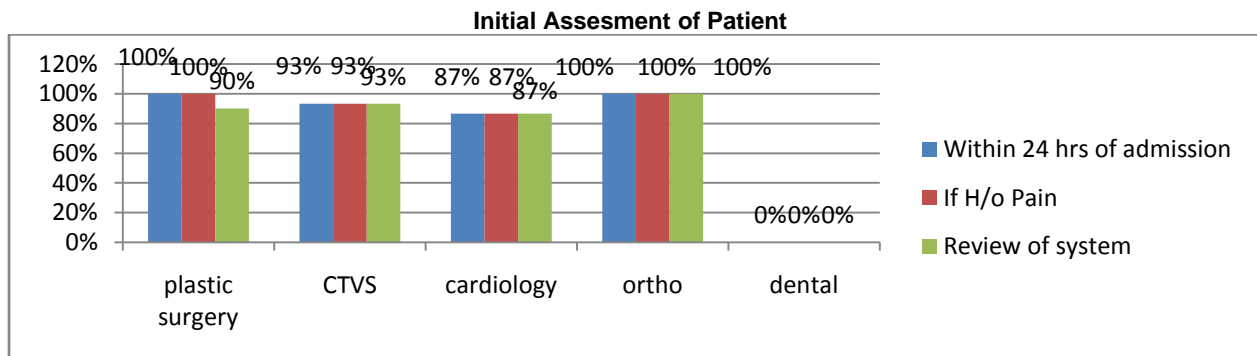
Research Methodology

There are two objectives of this research i) To study the clinical aspects documentation in the medical records. ii) To compare the clinical components compliance between five specialties. This study was conducted in the medical records department. A part of data was collected from the medical records and another part from the HIS. Data has been collected on routine basis from medical records department and HIS. All the analysis and graphical depictions were done with the help of MS-Excel. The place of study is a tertiary care hospital of Goa. The sample size shall be- Patients (90) – 20 files of each specialty. The sampling method will be convenient sampling. The data collection was done from the medical records department selecting the files at random. A few components were seen in the patient files and the rest in the HIS. Random patient files were seen of four months. The components covered were from the HIS and medical records. The components recorded from Hospital Information System are a) Initial assessment which further includes Plan of care, Medications, Diet, Activity,

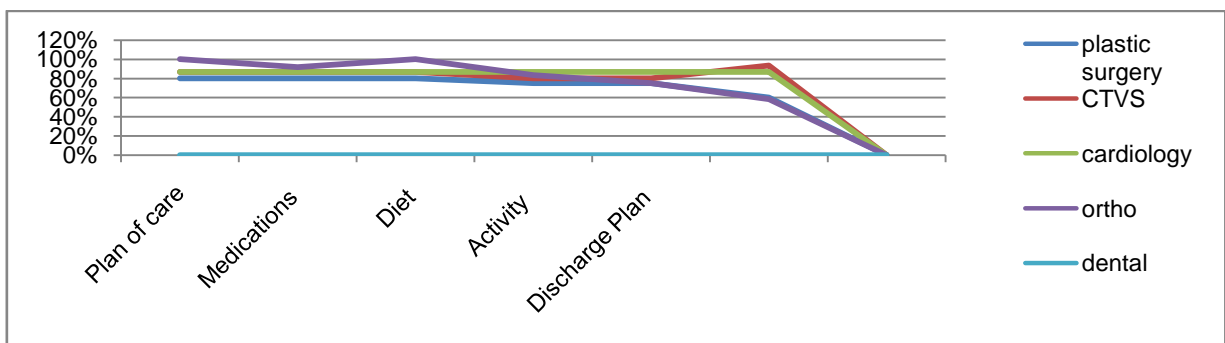
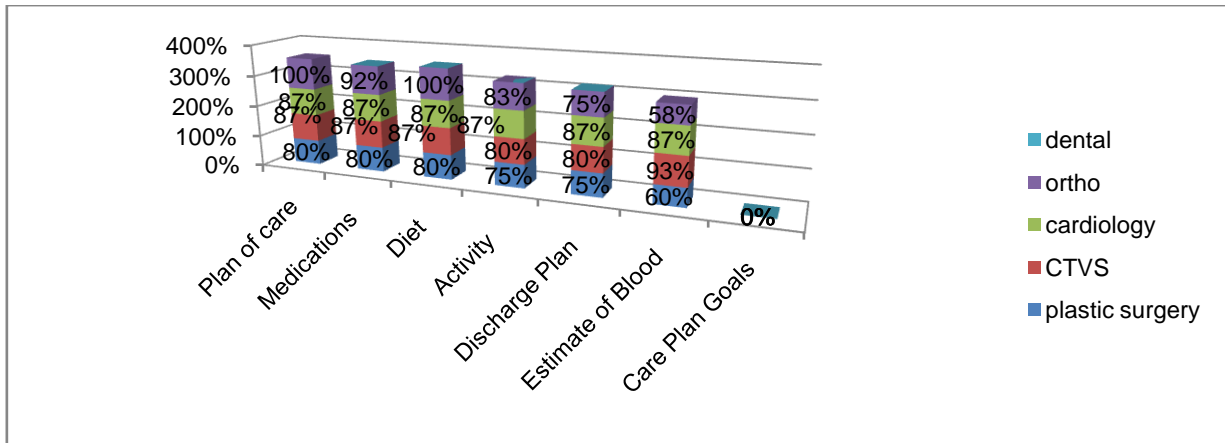
Discharge Plan, Estimate of Blood, Care Plan Goals b) Dr’s Progress note which further includes -- complete on day of admission, daily noted, pain assessment, care plans, Transfer notes and referral notes c) Operative notes including pre operative diagnosis, indications, complications and estimated blood loss. The components collected from Manual Medical records- are a) Consent form: All forms present, patient/relative signature, doctor’s signature, witness signature, name of treating doctor and signature of treating doctor. b) Anaesthesia assessment: Type of anaesthesia, PAC assessment, Time out documented, Baseline vitals documented c) Post anaesthesia recovery, Physiotherapy assessment, IDTR form assessment, PFE form assessment d) Medical records Sheet: All drugs mentioned, ordered time, order signs and legibility and e) Discharge summary: condition of patient, physical activity advised, diet advised and other non-drug advised. The data was tabulated and charts were drawn with the help of Microsoft software.

Data Analysis And Data Interpretation

All the components were checked for a random number of cases in the medical records file and HIS. The name of the five specialities is plastic surgery, CTVS, cardiology, orthopaedics and dental. The comparison between the specialities on various parameters is shown below



***The above figures show the comparison between the specialties during the time of initial assessment of patients.**

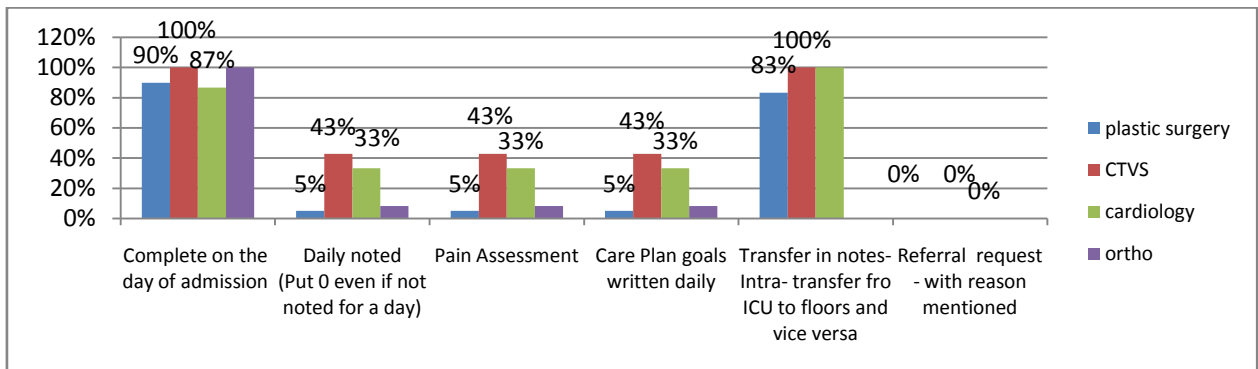


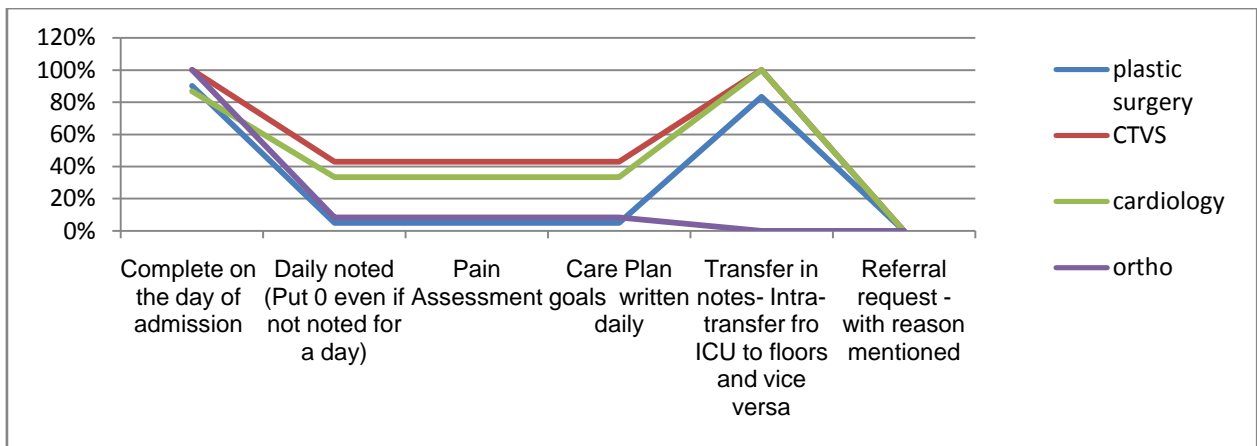
*The above figure shows the compliance of assessment at the time of admission by doctors of different specialties

Observation

- From above we can see that all the specialties have 0 compliance rate for care plan goals.
- Orthopedics has the highest compliance rate in all parameters except "estimate of blood"
- Dental has the lowest compliance rate in all the parameters.

Dr's initial assessment notes



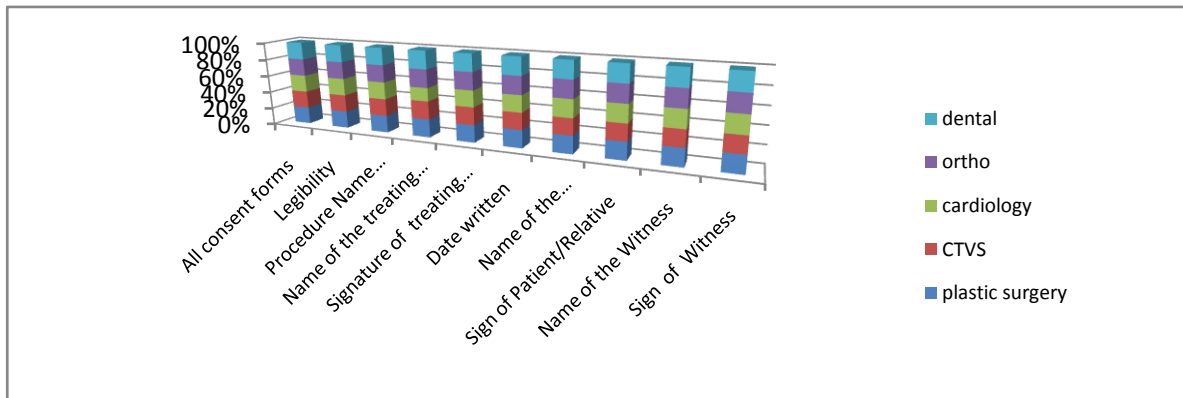


*The above figures show the compliance rate of Dr. Progress notes of various specialties

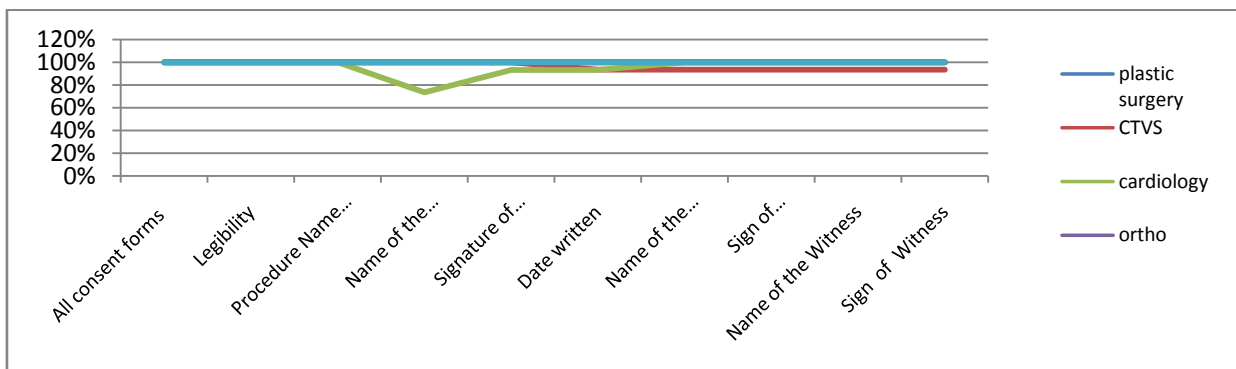
Observations

- CTVS is the specialty that has maximum compliance in this area.
- Dental again has the least compliance rate.
- Orthopedics is closer to CTVS but its compliance

rate drastically drops down in one parameter and that is “ transfer of patient”



Consent Forms



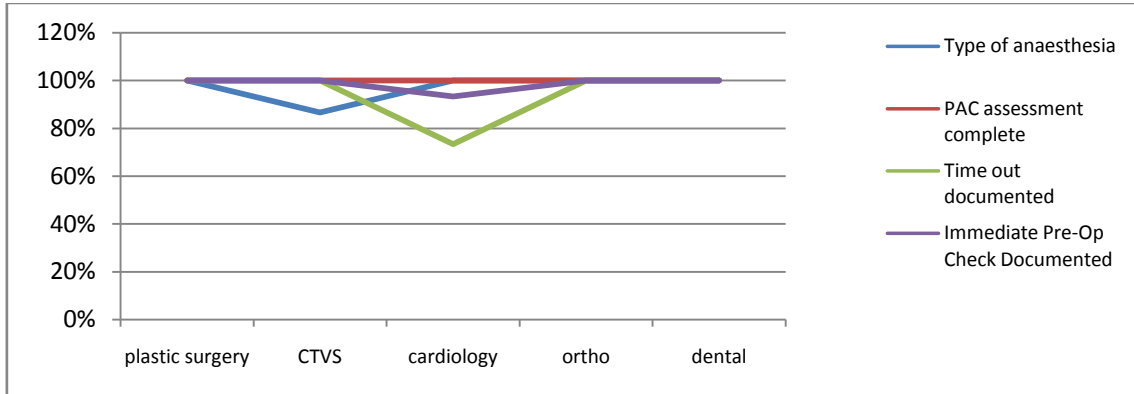
*The above figures shows the compliance rate of consent forms of various specialties

Observations

- Cardiology has the least compliance rate in having all the parameters of the form filled among these parameters the most not filled is the name

of the treating doctor.
• This is followed by CTVS which also has a low compliance rate in the signature parameter

Anaesthesia Assesment

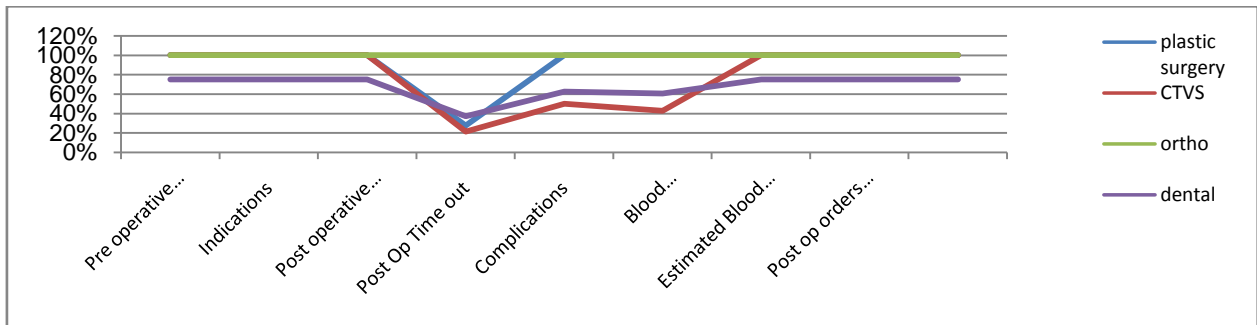
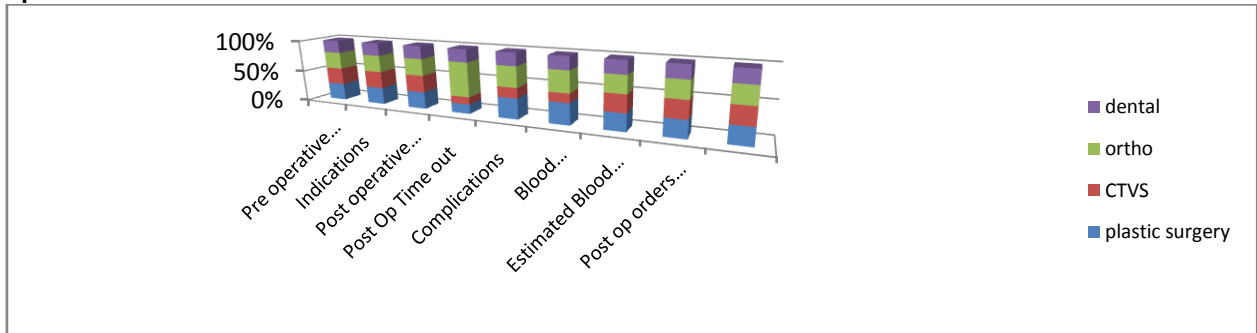


*The above figures shows the compliance rate of anaesthesia assessment of various specialties

Observations

- Cardiology has been seen to have the least compliance rate in this area with the most effected parameter being the time out
- CTVS lacks in mentioning the type of anesthesia most of the times.

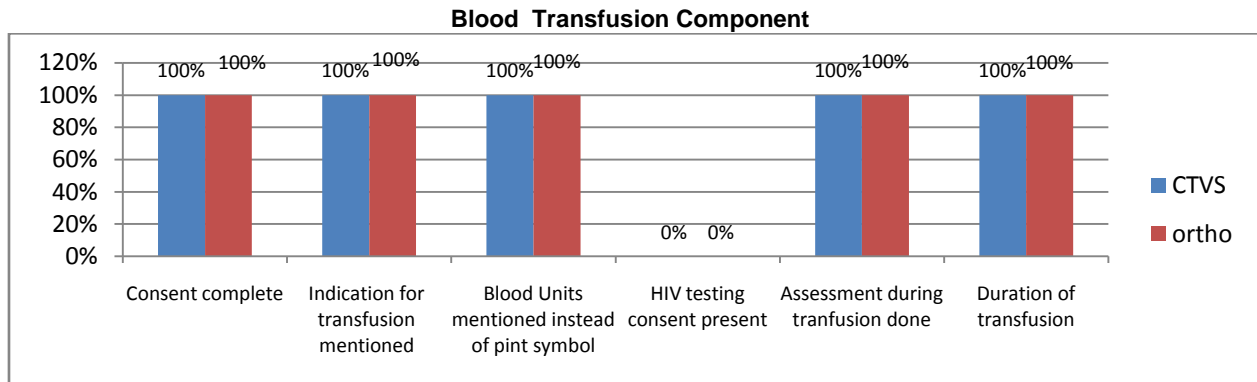
Operative Notes



*The above figures shows the compliance rate of operative notes of various specialties

Observations

- CTVS is the speciality that has the lowest compliance rate in this area. The main parameter effecting in this is the documentation of post op time.
- Plastic surgery also lacks the most in the same parameter as documentation of the post op time.
- Orthopaedics is the most consistent having 100% compliance rate in this aspect.

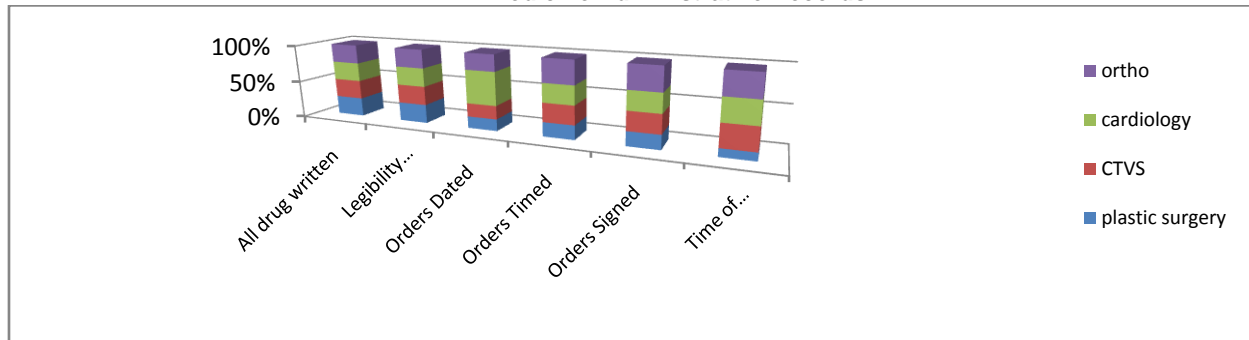


*The above figure shows the compliance rate of blood transfusion components

Observations

- All the components are seen to be filled except the "HIV testing consent for", this being one of the important components for blood transfusion this is not being done

Medicine Administrative Records

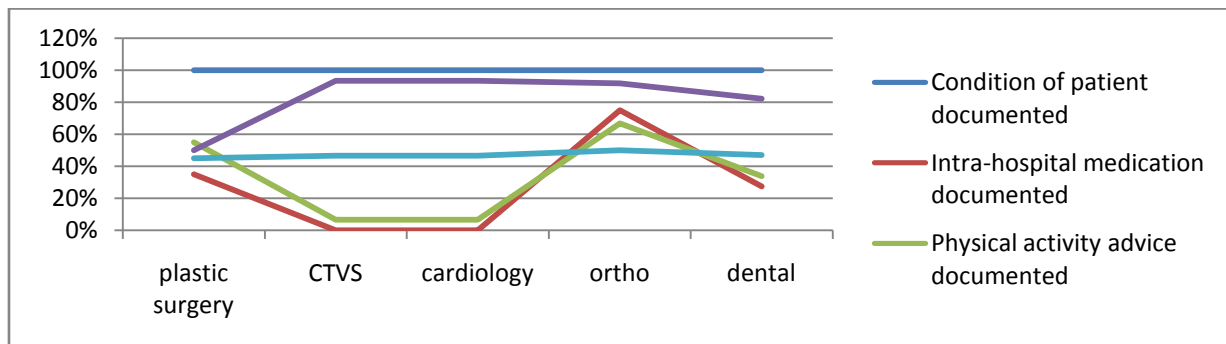
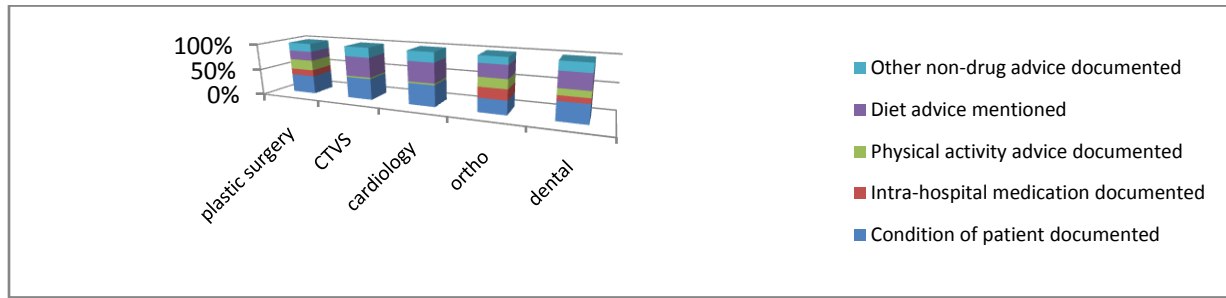


*The above figure shows the compliance rate of medicine administrative records components.

Observations:

- Plastic surgery has the least compliance in this area.
- All specialties lack compliance rate to a great extent in one parameter and that is "orders timed" of drugs.
- Next compliance parameter that is very important and is neglected is doctor signature against advising the drug

Discharge Summary

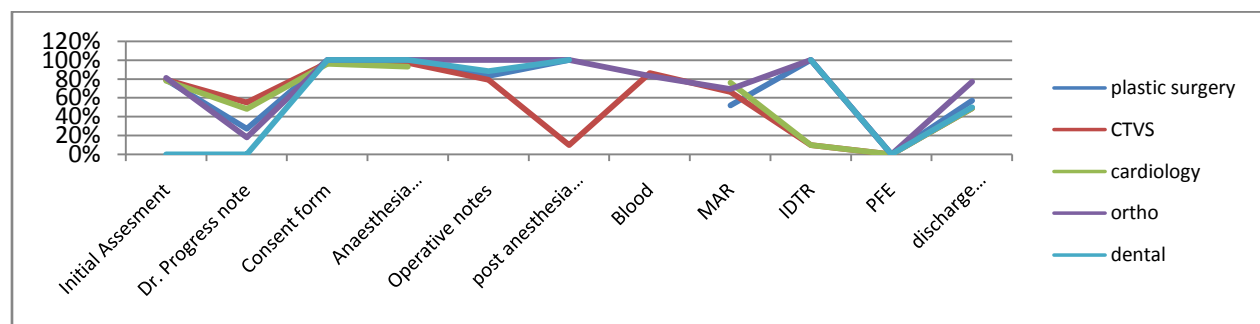
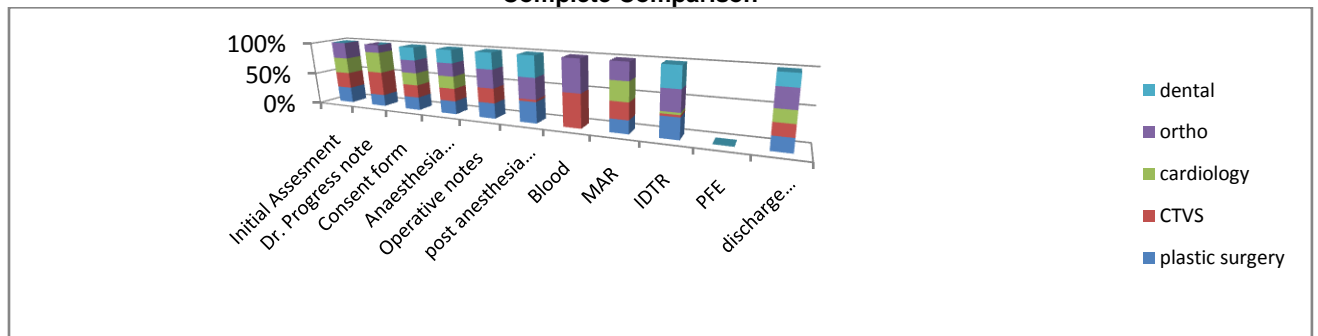


*The above figure shows the compliance rate of discharge summary of various specialties.

Observations:

- Intra hospital medications are not at all mentioned by the cardiology and CTVS team in the discharge summary.
- Orthopaedicians have the most compliance rate in this area.
- No physical activities precautions or advise is given in the discharge summary by cardiology and CTVS team

Complete Comparison



*The above figures show the complete compilation of all the parameters, of all the specialties in the study

Observations

- All the specialties have been seen to have the least compliance in PFE forms and the maximum in initial assessment.
- CTVS has the least compliance in post anaesthesia recovery compared to other specialties and maximum in progress notes.

- Dental has the least compliance in PFE and progress notes and the maximum in anesthesia assessment compared to other specialties.
- Orthopaedics department is seen to have the best compliance among all other departments

Conclusions

There are various areas where there is lack in filling the components regularly. Orthopaedicians have the most compliance rate among all five specialities and dental department has the least compliance rate. The clinician in a rush forgets to write the notes at times. If the details are not mentioned a few components can be taken against the clinician which may be crucial evidence in increasing litigation cases in healthcare sector.

Recommendation

There should be regular check of the records by the floor co coordinator at the floors to see if the clinical details are filled or not. Clinician should be made reminded again and again about the importance of maintaining the records and especially the areas where they tend to skip regularly. Regular training of clinicians to emphasize the importance

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