Title: Cholecystectomy Criteria Audit Part

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# 1.0 Introduction

Criteria audit can be referred as a quality enhancement cycle comprising capacity of the efficiency of healthcare towards decided and demonstrated standards for high quality, and organizing action to carry out practice in line with standards in order to advance the quality of patient care and health results (HQIP, January 2011). Audits form part of the clinical authority, providing a means used for assessing whether patients are getting the best eminence of care. Audit along with peer review are significant strategies in maintaining standards in surgical care. Surgical audit is a systematic, critical analysis of the quality of surgical care that is reviewed by peers against explicit criteria or recognized standards, and then used to further inform and improve surgical practice with the ultimate goal of improving the quality of care for patients. Present report will examine both the nature of a criteria audit and how it is usually applied in health services. The report also considers how criteria audits are being increasingly used in surgical procedures. Finally, it will focus on the case of cholecystectomies which is a common treatment of symptomatic gallstones and other gallbladder conditions (Goldman, Lee 2011). In this report there is a discussion on some important points which have used criteria audits to assess surgery. At the end of the report results of criteria audit, discussion of results and recommendations are outline which proved to be helpful for further improvement in this surgery.

Present study of criteria audits in cholecystectomy was carried out in Curtin hospital in southern hemisphere, will discuss the scope of the use of criteria audits in these surgeries. Current investigation represents an account of criteria audit practice in cholecystectomy and also outlines the recommendations for further enhancement in this surgical procedure.

# 2.0 Background& literature review

## 2.1 About the Curtin hospital

Curtin Hospital is located in southern hemisphere of Australia and is among the most reputed trusted and busiest hospitals. According to the survey Curtin Hospital ranks fourth in handling the number of trauma cases in Australia. The hospital has over 3,500 staff who works in part time and full time capacities.. Curtin Hospital is a public hospital which was funded by the government for the welfare of the local population, so by keeping these thing in consideration Curtin Hospital provide a substantial number of care services as economically efficiently as possible so that maximum patient can take advantage of these facilities. Annually Curtin Hospital provides cares for over more than 60,000 patients. In Curtin Hospital Casemix offers the health care system with a reliable method of classifying different types of patients, their diagnosis and related costs and includes developing and implementing clinical classifications, methods and assigned services. Auditing or development of statistical model towards making comparisons of patent’s clinical performance, adjusted for casemix is always performed. Towards this, outcome measures of Auditing are need to be relevant and well defined, wherein the risk factors employed in the model must reflect the patients' prognosis performance rather than features of his or her clinical maintenance. Apart from maternity and obstetrics in Curtin Hospital the health care services across the board is also provided.

## 2.2 About cholecystectomy surgery

 Cholecystectomy is the removal of the gallbladder by surgery. Usually two main types of cholecystectomy present, laparoscopic cholecystectomy and open cholecystectomy out of these laparoscopic cholecystectomy is considered as less invasive and requires a shorter recovery time than an open cholecystectomy (Kapoor, 2007). The procedure of cholecystectomy is of supreme attention to the medical profession in general because it is one of the most commonly performed operations worldwide.Early laparoscopic cholecystectomy for acute cholecystitis is associated with a higher conversion rate than elective laparoscopic cholecystectomy. Overall complication rate is low, with 95% of patients having no complications. Laparoscopic CBD exploration is feasible with a reasonable success rate. This can all be achieved at a secondary referral centre staffed by general surgeons.(Tan , 2006).

Ultrasound procedures are also used for Cholecystectomy, which involves shattering of unwanted gall stones by lithotripsy with the help of soundwaves. ). After gallbladder surgery, some people have ongoing abdominal symptoms, such as pain, bloating, gas, or diarrhea .One potential complication for surgeons while carrying out the cholecystectomy is the damaging of the common bile duct while performing a cholecystectomy operation. Literatures are also available in which medication may be dispensed to dissolve the gall stones (Onders and Hallowell, 2005).

# 2.3 The use of the audits in cholecystectomy surgery

Nowadays there is an immense pressure on medical administrators to show accountability in the choice of allocation of the hospital fund,in this case criteria audits proved to be very helpful in establishing the validity of any hospital’s paperwork. In Australia,criteria audits have been practised since the early 1980s (Collopy et al. 1981). Bailey, Binh, and Bang (2009) used criteria audits to study surgery in obstetric care in Vietnam.

# 3.0 Rationale

The audit improves clinical documentation and the livelihood of the health care organization, wherein it essential to assess criteria towards attaining corrections and improvements. The assessment criteria of an audit are to deliver efficient and improved delivery of care and to advance the health of the financial healthcare provider. This audit has the principle of measuring the quality of care that cholecystectomy patients have received at Curtin Hospital and aims to to reduce the errors and mistakes in the future.

# 4.0 Objective of the audit

The audit improves clinical documentation and the livelihood of the health care organization, wherein it essential to assess criteria towards attaining corrections and improvements. The assessment criteria of an audit are to deliver efficient and improved delivery of care and to advance the health of the financial healthcare provider. This audit has the principle of measuring the quality of care that cholecystectomy patients have received at Curtin Hospital and aims to to reduce the errors and mistakes in the future.

# 5.0 Creations

In this report total, 11 criteria have been selected. All these criteria have been taken from the RACS

**Table 1:** **The** 11 criteria used in the cholecystectomy criteria audit of Curtin Hospital:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No. | Criterion | Expected Rate (%) | Exceptions | Definition |
| 1 | Do the signs, symptoms and investigations pre-cholecystectomy justify the surgery? | 100% | None |  |
| 2 | Was the pathology report positive? | 100% | None | The description of cells and tissues made by a pathologist based on microscopic evidence, and sometimes used to make a diagnosis of a disease |
| 3 | (a)Was there surgical exploration of the common bile duct? | 100% | No common bile duct exploration | None |
|  | (b) If so, is there evidence of disease of the common bile duct? | 100% | No common bile duct exploration | None |
| 4 | Is the admission free of unplanned additional surgery? | 100% | Unplanned additional surgery not related to the cholecystectomy | None |
| 5 | Has the patient been given antibiotic prophylaxis in accordance to the given protocol? | 100% | None | Antibiotic prophylaxis in laparoscopic cholecystectomy (LC) and to the dosage protocol to be adopted in order to reduce the incidence of infections at the site of the surgical operation which, albeit with lower incidence than in "open" surgery, 5.3% vs 14%, can vanify the advantages of the mini-invasive approach. |
| 6 | Is the admission free of intraoperative or postoperative blood transfusion? | 100% | None | None |
| 7 | Was the result of the procedure non-fatal? | 100% | None | None |
| 8 | Was the length of stay <= 5days? | 100% | No patient is admitted for 5 days and more | None |
| 9 | Is the number of days preoperative <= 1 day? | 100% | None | None |
| 10 | Is the record free of readmission for any related condition? | 100% | None | Re-admission rate following laparoscopic cholecystectomy is currently defined as within 30 days of the initial operation. |
| 11 | Is the cholecystectomy procedure free of surgical wound infection? | 100% | None | surgical wound is produced  during a surgical procedure, e.g. the original incision. |

The possible responses to this criterion are:

Y (Yes);

N (No); or

N/A (Not applicable).

# 6.0 Methodology

The clinical audit in Curtin Hospital should be conducted on the basis of health and safety targets of Curtin University, because it ensures the health and safety management system of the audits and reviews. This audit must be match with the targets of the Curtin University to increase the health and safety. In addition, all actions and results of clinical audit of Curtin Hospital must be documented in a proper way for information management purpose. These results and activities also release to the management and personnel of the organization.100 samples of cholecystectomy cases were collected from the Curtin Hospital records by using random selection method .

All the records of cholecystectomy cases were de-identified in order to protect the personal details of the patients.

The six sources are included to obtained Patient information completely. These 6 sources are listed below in a specific sequence:

* Anesthetic notes,
* Discharge summary,
* Emergency department notes,
* Inpatient progress notes,
* Outpatient notes &
* Referral letters.

# 7.0 References

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Patient Information for Laparoscopic Gall Bladder Removal. 2004. *Society of American Gastrointestinal and Endoscopic Surgeons SAGES*.

Tan JT, Suyapto DR, Neo EL, Leong PS. Prospective audit of laparoscopic cholecystectomy experience at a secondary referral centre in South australi. ANZ J Surg. 2006 May;76(5):335-8.

## 8.0 Appendix

# Blank data collection form

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| Patient ID | Age | Gender | AdmisDate | OpDate | DischDate | Admis Type | Type\_of\_cholecystitis | C1 | C2 | C3a | C3b | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | Comments |
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C1-Do the signs, symptoms and investigations pre-cholecystectomy justify the surgery?

C2-Was the pathology report positive?

C3-(a)Was there surgical exploration of the common bile duct?

(b) If so, is there evidence of disease of the common bile duct?

C4-Is the admission free of unplanned additional surgery?

C5-Has the patient been given antibiotic prophylaxis in accordance to the given protocol?

C6-Is the admission free of intraoperative or postoperative blood transfusion?

C7-Was the result of the procedure non-fatal?

C8- Was the length of stay <= 5days?

C9-Is the number of days preoperative <= 1 day?

C10-Is the record free of readmission for any related condition?

C11-Is the cholecystectomy procedure free of surgical wound infection?