Anesthesia nursing audit? Yes!

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Retrospective audits are rapidly gaining widespread usage as a means of evaluating patient care. The author identifies some of the basic components in developing process and outcome criteria. He draws from his experience as a teacher and nurse clinician, as well as a practicing anesthetist.

After a recent review of the anesthesia nursing literature, it became quite apparent, to this writer, that there was a definite lag in the response of anesthetists to begin retrospective anesthesia audits. Either one of two things are happening: (1) the audits are not being widely used, or (2) no one has taken the time to report what is being done. This writer suspects the latter.

Audits are time consuming; however, when they are looked upon as instruments for improving patient care, there is no question that time and costs are minor considerations. The audit not only serves as a means for improving patient care, it also serves as a means for educating and re-educating the entire anesthesia staff, in addition to ensuring that the staff is performing within the defined "standards of care."

Exactly what is an audit? And, more specifically, what is a retrospective audit? Who should perform these audits? And, how can the outcome data be used to improve anesthesia services and thus patient care?

Phaneuf defines an audit as: "A systematic, formal, and written appraisal of the quality of the content and process of service from care records for discharged patients." Since nurse anesthetists are nurses, it can be assumed that they are providing a specific type of nursing care, and this care should be systematically evaluated by nurses. Hanna states: "Any method which systematically examines the quality of nursing care could be termed a 'nursing audit.'" If this definition tends to bother the anesthetist because it doesn't include the word "anesthesia" or "anesthetist," it could easily be rearranged to read: "An anesthesia nursing audit is any method which systematically examines the quality of anesthesia nursing care."

It is generally accepted that audits will be conducted on "dead" records, that is, records of discharged patients; however, if there were a large number of patients hospitalized for an extended period of time, it is conceivable that the audit committee would want to review "live" records. The retrospective audit seems to be the one favored by most institutions including the Joint Commission on Accreditation of Hospitals (JCAH). A retrospective audit simply means the process of surveying the past—that is, do the records accurately reflect the kind and type of care which the institution or group say they are providing?
Audit criteria

The retrospective anesthesia nursing audit may include either "process" criteria, "outcome" criteria or both. This writer favors an audit which includes both process and outcome criteria. Process criteria focus on the methods and techniques of the anesthetist in providing anesthesia nursing care, and outcome criteria focus on the patient's response to that care.

Process criteria are reflected in the anesthesia record and include such things as: (1) was the anesthesia machine checked by the anesthetist administering the anesthetic, (2) was a mask or endotracheal tube used, and (3) when the intravenous was started, what was the size and type of needle used, type of fluids given and the area where the IV actually was started. There is an accepted process "standard of care" and this should be reflected in all anesthetic records. These standards could represent the process criteria. This writer believes there are four major components which should be included as process criteria. They are:

1. Evidence of pre-anesthetic evaluation and physical status by the anesthetist administering the anesthetic.
2. Evidence of intra-anesthetic surveillance to include: (a) monitoring of patient (EKG, temperature, etc.); (b) technique employed and agent used; (c) fluids and drugs used—amounts; (d) status of patient at conclusion of the operation; and (e) other pertinent information as established by the department.
3. Evidence of post-anesthesia surveillance (recovery room); condition of patient (awake, comatose, shock, etc.).
4. Evidence of post-anesthetic evaluation by the anesthetist who administered the anesthetic to include: (a) anesthetic-related complications; and (b) if complications are noted, were they treated and how?

Outcome and process criteria could be identified and specified from these four major components.

Since outcome criteria represent the patient's response to the care given, they are more difficult to write than process criteria. Although this writer believes process criteria to be important, he believes that outcome criteria have several advantages over process criteria because: (1) they focus on complications, (2) patient education, and (3) goals of the anesthetist.

If the anesthetist sets outcome goals, the retrospective audit then serves to measure whether or not the goals were met. The anesthetist's goals could become part of the overall nursing care plan for the patient and be incorporated into the daily nursing care of the patient. For example, if one of the goals of the anesthetist was to "prevent phlebitis at the IV site," an outcome criteria would reflect whether or not this goal had actually been achieved. The outcome criteria should be stated so as to reflect, in the patient's record, that a post-anesthesia visit was made and the condition of the IV site was noted.

If, indeed, a complication had occurred, not only would this be reflected in the patient's record, but more importantly, the record would reflect the nursing action taken to treat the complication. For example, the IV may be restarted in another area; the old IV site may be cultured, as well as the IV catheter tip; and sterile dressings may be applied to the old and the new IV sites. The notes would also reflect that the complication had been brought to the attention of the other nursing and/or medical staff.

The writer would like to digress for a moment to say that he believes that if the anesthetist is called to a patient care unit to perform a function, that function should be documented in the patient's record as to the date, time and activity, by the anesthetist performing the service.

The question may arise as to where does the anesthetist document his/her service? It is the belief of this writer that if the patient's chart contains a patient's progress record this is where the anesthetist should document the ser-
## Table 1

Examples of writing outcome criteria for specific agents and/or techniques

### Outcomes: General anesthesia—Halothane

1. Patient verbalizes knowledge of side effects of halothane.
   - (a) Nausea and vomiting
   - (b) Shivering
   - (c) Temperature elevation
   - (d) Jaundice
   - (e) Severe headache

2. Patient verbalizes knowledge that side effects may occur after discharge from the hospital (e.g. jaundice, dark urine, nausea and vomiting beyond the first 12-14 hours).

3. Patient verbalizes knowledge that side effects should be reported if they occur after discharge.

4. Physical status—note includes:
   - (a) Temperature
   - (b) Color of sclera
   - (c) Color of urine
   - (d) State of hydration
   - (e) Blood pressure, pulse
   - (f) Breath and heart sounds
   - (g) Nausea and vomiting (if occurred)

5. Record indicates action taken if side effects, complications or adverse reactions occurred.

### Outcomes: Intravenous infusion sites

1. Patient verbalizes an understanding for the need to change IV sites every 24-48 hours during prolonged IV therapy.

2. Physical status—note includes:
   - (a) Sterile dressing over IV site
   - (b) Sterile dressing is marked as to: date and time started, size of needle, and the initials of the person starting it
   - (c) Condition of IV site: reddened, swollen, draining, hot; or, clean, clear with no evidence of inflammation or infection

3. Record indicates action taken if IV site is inflamed or infected, or anything other than normal appearing.

### Outcomes: Spinal anesthesia—Subarachnoid block

1. Patient verbalizes knowledge of side effects of SAB.
   - (a) Headache
   - (b) Hypotension
   - (c) Weakness of lower extremities several hours following return of motor and sensory function
   - (d) Headache with diplopia

2. Patient verbalizes knowledge of what to do should side effects occur.

3. Physical status—note includes:
   - (a) Mental state
   - (b) Motor and sensory function of lower extremities
   - (c) Ability to urinate without difficulty
   - (d) Bowel movement without difficulty
   - (e) Blood pressure, pulse, and temperature
   - (f) Ambulatory or bed rest
   - (g) State of hydration
   - (h) Pain or numbness in either or both lower extremities

4. Record indicates action taken if side effects, complications or adverse reactions occurred.
vice performed. However, if the record contains a doctor's progress record and a nurse's progress record, the anesthetist should document the service rendered in the nurse's progress record. Hopefully, the decision to act will be based upon the nursing process and therefore should reflect that action, thus providing a continuity of patient care.

It seems fairly obvious that one can quickly see how a well planned and conducted audit could improve overall patient care. It is not enough, however, to merely conduct an audit; the most important outcome of the audit is how the information is used. Rinaldi and Kelly in their article, “What to do after the audit is done,” explicitly point out the kinds of actions which can be taken as a result of information gleaned from the audit.

Writing criteria

Criteria for many general nursing audits are based on diagnostic categories. For example, a general medical unit may write criteria for acute myocardial infarction, and a general surgical unit may write criteria for cholecystectomies. Watson and Mayers have found that classification of criteria by medical diagnosis makes possible the easy retrieval of charts from medical records. They believe, however, that if one can find ways to retrieve charts by other categories, this too is acceptable.

It does not seem feasible, to this writer at least, to establish outcome criteria (for anesthesia audits) based on specific diagnoses or conditions. It seems more reasonable to write outcome criteria for specific agents and/or techniques. (Table 1.)

It must be kept in mind that when criteria are being written, this criteria will be evaluated either positively or negatively, and that a numerical value will be assigned to the criteria so as to determine a “safety” range within the standard of care. For example, items may be graded and weighted in order of their relative importance. This method will provide an overall percentage “grade” and will reflect the “pass” or “fail” services of the department.

Recommendations

For those anesthesia services which are not yet conducting audits, but are in the “thought stages,” this writer recommends the following:

1. Review the literature, extensively. The nursing literature abounds with helpful information.

2. Attend one or several workshops or seminars specifically designed to give information about audits or peer reviews.

3. Establish a committee—either an independent committee or become part of the general nursing audit committee.

4. Begin to write criteria based on the individual needs of the department.

Every anesthesia nursing department should be conducting its own audits. However, in small hospitals where individual departments are also small, this writer would recommend that a CRNA serve on the general nursing audit committee, thus bridging the gap between general nursing and anesthesia nursing—keeping in mind that the purpose of the audit is improved patient care.

Shepard writes, “It is time to look at the anesthetic chart in a new light—one that places more emphasis on the chart as a measure of patient care, rather than as a reference piece in the courtroom.” This writer believes that the retrospective anesthesia nursing audit is one mechanism for doing just that.

REFERENCES

ADDITIONAL READING


AUTHOR

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