A model of clinical audit managers to assist with data collection for surgical mortality audit

Context
The Collaborating Hospitals’ Audit of Surgical Mortality (CHASM) is a systematic peer review audit of deaths of patients, who were under the care of a surgeon at some time during their hospital stay in NSW, regardless of whether an operation was performed. It is funded by the NSW Department of Health, administered by the Clinical Excellence Commission (CEC) and co-managed by the NSW State Committee of the Royal Australasian College of Surgeons (RACS). CHASM is a partner of the Australian and New Zealand Audit of Surgical Mortality (ANZASM), which is a bi-national framework of regionally-based audits of surgical mortality established by RACS.

Objectives
To promote continuous improvement in surgical health care by giving surgeons timely feedback from findings of surgical mortality audit

Key Messages
Collecting data for surgical mortality audit has been challenging in NSW due to its geographical vastness and the different hospital patient administration systems used within the health care system. CHASM has implemented a model of clinical audit managers, who are primarily responsible for:
- Notifying deaths in public hospitals to CHASM
- Assisting surgeons with access to patients’ medical records at public hospitals for completion of surgical case form
- Assisting the CHASM project team with retrieval of medical records from public hospitals for second line assessment
- Promoting surgeon participation in CHASM
- Advising the CHASM project team of any local issues that may impact on surgeon participation

Discussion and Conclusions
Since its inception in January 2008, CHASM has an average notification data of 2000 deaths per year.
- 97% of deaths were notified by clinical audit managers
- 3% were notified directly by surgeons

The tables below present the data on CHASM outputs through the involvement of clinical audit managers at area health services.

A. Calendar year figures for CHASM at 31 October 2010

<table>
<thead>
<tr>
<th>Year-to-date</th>
<th>2010</th>
<th>2009</th>
<th>Cumulative total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of recorded deaths</td>
<td>1795</td>
<td>2177</td>
<td>1606</td>
</tr>
<tr>
<td>No. (%) of deaths with completed surgical case forms</td>
<td>975 (54.3%)</td>
<td>1310 (60.2%)</td>
<td>1042 (64.9%)</td>
</tr>
<tr>
<td>No. (%) of deaths that have completed the audit</td>
<td>682 (78.5%)</td>
<td>957 (94.9%)</td>
<td>861 (97.5%)</td>
</tr>
</tbody>
</table>

* The denominator used for calculation of percentage is the number of deaths with completed surgical case forms, excluding terminal cases.

B. The numbers of participating surgeons*

<table>
<thead>
<tr>
<th>At 31 October 2010</th>
<th>2009</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of participating surgeons</td>
<td>788</td>
<td>649</td>
</tr>
<tr>
<td>Number of first line assessors</td>
<td>323</td>
<td>273</td>
</tr>
<tr>
<td>Number of second line assessors</td>
<td>241</td>
<td>193</td>
</tr>
</tbody>
</table>

* Participating surgeons are those who have returned a signed form indicating their participation and/or completed a surgical case form.

CHASM uses a self-administered questionnaire (surgical case form) to collect data from surgeons and assessors. Previously, self-reported data reliant on memory was subject to recall bias, especially when there was a lengthy period between the death and the completion of the questionnaire. Missing data was also a concern. Clinical audit managers have helped improve data quality by:
- Providing timely notification of deaths to CHASM
- Making medical notes available to surgeons for completion of the surgical case form
- Following up on outstanding cases regularly
- Maintaining communication with surgeons to clarify involvement in patient care throughout the audit process

The clinical audit manager model has successfully overcome the operational complexity for the transmission of data, information and medical notes from public hospitals to CHASM throughout the audit process. It has also helped improve the quality of self-reported data collected for the audit by providing local support to surgeons.

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