

Appendix 2

This appendix was part of the submitted manuscript and has been peer reviewed. It is posted as supplied by the authors.

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Appendix 2. Background and study methods

DEVELOPMENT OF A PEER REVIEW PROCESS

Initially, we developed a peer review framework which identified the validated core domains of well-functioning MDMs^{1,2} and criteria for assessing each domain (Appendix 1). Data collection tools (Box 1) and a MDT Assessment Form were developed to aid assessment against identified criteria in each core domain. An extensive consultative process was undertaken and the final framework was agreed upon with input from opinion leaders, key stake-holders, and consumers.

Each MDT was assessed against the peer review framework by four senior health professional peer reviewers with knowledge of cancer care and MDT work. The peer reviewers were: a medical oncologist from interstate; a cancer surgeon; the manager of the state-wide cancer nurse coordination team; and one of two participating consumer representatives (formerly health professionals). Training was provided to peer reviewers prior to undertaking the peer review.

The peer review process involved the four components detailed in Box 1.

Box 1: Components of the Peer Review Process

- 1. Data collection prior to peer review included:
 - MDM clinical leads completed the MDT Questionnaire a modified version of the Cancer Institute NSW's 2008 guestionnaire³.
 - Twenty randomly selected patients discussed at MDMs in the previous 6 months were asked for consent for their medical records to be reviewed and to complete a Patient Questionnaire. The Patient Questionnaire investigated patients' knowledge and experiences of a MDM and treatment decisions arising from it.
 - Three consecutive MDMs in each tumour stream were video recorded.
- 2. Review of relevant information by the peer reviewers. Data review included:
 - Responses to MDT questionnaires.
 - Responses to patient questionnaires.
 - Hospital medical records of consenting patients.
 - MDT governance documents and guidelines.
 - MDT records.
 - Observation of one video-recorded MDM per stream.
- 3. Meeting of peer reviewers with members of each MDT and detailed discussions. Meetings were open to all health professionals who were part of the MDT under review.
- 4. Written report prepared by peer reviewers and research team. MDT respond to the report and comments. Final report considered any further input from the MDT members. Reports and outcomes remain the property of the MDTs.

PILOT STUDY OF THE PEER REVIEW PROCESS

We conducted a pilot study of the peer review framework with three mature metropolitan-based MDTs in Western Australia. Each MDT was from a different hospital, a different tumour stream, and representing public and private sectors. Reports were prepared using a template (Appendix 3) and provided to each MDT. Five to eight recommendations were made to each MDT. The most frequent related to processes aimed at standardising procedures and to support communication with patients and other health professionals (Table 1). The review and preliminary reports were accomplished in one four-day period.

Table 1: Recommendations made to MDTs by the peer reviewers

Domain of report	Recommendation	Number of MDTs
Patient involvement	Development and distribution of standardised written information about multidisciplinary care, the MDT members and their role to all patients.	3
	Provision of a written record of the treatment recommendations from the MDM and final treatment plan to the patient and the GP in a timely manner.	3
Quality Assurance	Routine audit and feedback of outcomes should be scheduled into the activities of the MDT.	3
Structure and governance	Development and documentation of policies and procedures governing the nature and functioning of the MDT.	3
Financial Governance	Exploration of how the presenting/treating doctor, radiologist and pathologist might make claims for remuneration for private patients using Medicare Items 871 and 872.	2
Meeting organisation and support	Consideration for a streamlined approach to patient discussions at MDM. Consideration should be given to the potential for simple, non-contentious cases to be treated according to agreed protocols and guidelines, and listed for mention only at the MDM.	2
Standards of Care	Presentation of the patient case at the MDM before initiation of any treatment.	1
	Formal documentation of guidelines used by the MDT.	1

A QUALITATIVE STUDY OF HEALTH PROFESSIONALS PERCEPTION OF THE PEER REVIEW PROCESS

Following the pilot study, we undertook a qualitative study to explore health professionals' perceptions of the feasibility and acceptability of the peer review process in an Australian context. A qualitative methodology was considered appropriate for this initial, explorative investigation of health professionals' views of the peer review process. Qualitative research methods have been found to be particularly useful in the exploratory investigation of a phenomenon where little is understood and is particularly helpful in explaining economic, political, social and cultural factors associated with health issues. It also assists in the understanding of interactions between such aspects of health. ⁴⁻⁶

Methods

Semi-structured interviews were conducted with peer reviewers and consenting MDT members. Respondents' perceptions were sought regarding the appropriateness of the information requested from the MDT; expectations and experiences of the process; perceived impact of the peer review process; views about future implementation of the process, and suggestions for future improvement. Interviews were conducted by telephone or face-to-face and were audio-recorded and transcribed verbatim.

This study was approved by the Ethics Committees of the three hospitals involved in the project and by the University of Western Australia Ethics Committee.

Sample

In research of a similarly exploratory nature to ours, in-depth information is sought from well informed people from different disciplines who can provide varied perspectives regarding a phenomenon about which little is known.^{5,7} In line with this, we adopted a convenience sampling approach, whereby health professionals who took part in the pilot study (peer reviewers and MDT members attending the meeting) were invited to take part in an interview.

Twenty four MDT members consented to take part in the study, however only 17 were available for the interviews. All five peer reviewers were interviewed. Peer reviewers were interviewed within six weeks of the peer review process, while MDT members were interviewed between five and seven months after the pilot study.

Analysis

Analysis of the interviews was undertaken using the framework approach⁸ and thematic analysis.⁹ Key issues and concepts were identified and emerging themes developed with reference to the research questions and objectives and data. Constant comparisons were made between and within cases throughout the analysis¹⁰. Data were grouped into four a priori themes: the report; peer reviewers' recommendations; the peer review process; and future directions for the peer review process. Initially, identified categories were verified by three independent researchers and further amended through continuous discussion and comparison. To help establish the reliability of our findings, member checks were conducted with a sub-sample of subjects⁵. All data were processed against the framework using QSR NVivo 10 software.

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