Cancer Services Performance Indicators

Data Collection Method 2014
1. Introduction

The Victorian cancer service performance indicator program was established to measure progress with the implementation of Victorian Government cancer reform policy. The four key priorities for reform have been identified as the focus for service improvement at the Integrated Cancer Service (ICS) and statewide levels:

- multidisciplinary care;
- care coordination across the cancer care pathway;
- supportive care;
- reducing unwarranted variation in practice.

The four priority areas are integrally linked to each other and initiatives may impact across priority areas.

Integrated Cancer Services were established within metropolitan and regional Victoria and there is one state-wide Paediatric Integrated Cancer Service (PICS). The development of ICS has lead to networking and linking of hospitals, community and primary care services to ensure that cancer can be detected and treated by groups of health care professionals who have committed to working together to plan and coordinate patient care across specified geographic areas.

The cancer service performance indicator program was established in 2007 and has evolved over the years. The indicator program is one component of a number of cancer quality evaluation and benchmarking strategies including state-wide multidisciplinary team meeting survey evaluation, cancer patient experience survey, cancer clinical indicators, clinical audit, program evaluation and cancer peer review. These quality and evaluation initiatives underpin the model for safety and quality in Victorian cancer services as outlined in Clinical Excellence in Cancer Care (DHS, 2007).

It should be remembered that this performance indicator program involves clinical audit, which has been defined as "a quality improvement process that seeks to improve patient care and outcomes through systematic review of care against explicit criteria and the implementation of change". (NICE, 2002)

For 2014, the cancer service performance indicator program involves the collection and reporting of data for four cancer performance indicators, some with targets as outlined in Victoria’s Cancer Action Plan 2008-2011 and relevant policies:

- Documented evidence of multidisciplinary team recommendations;
- Documented evidence of disease staging in the multidisciplinary team recommendations;
- Documented evidence of communication of initial treatment plan to GP;
- Documented evidence of supportive care screening.

The indicator program provides a high-level report that is intended for distribution and reporting at health service, ICS and statewide levels to monitor process of care and identify where care can be improved. Indicators provide a flag rather than a definitive answer; they indicate potential problems that may require further investigation. The indicator program is designed to contribute to a culture of evaluation, benchmarking, feedback and continuous quality improvement.

The Cancer Strategy and Development section of The Department of Health & Human Services encourages ICS secretariats to produce a local level indicator report for participant member health services and to collect additional locally relevant performance data as part of this process.

The cancer service performance indicators are periodically reviewed and the methods refined as required to promote a robust and useful cancer service performance indicator program. The review includes feedback from the ICS secretariat including the data / quality staff administering the data collection.
2. Data collection period

The cancer service performance indicator program promotes the timely collection, analysis and reporting of patient data across all ICS. The data collection period is defined by:

- All ICS will conduct data collection twice a year.
- There will be a two month minimum lag time between patient cancer diagnosis and inclusion in the audit. This will ensure patients have undertaken treatment planning and/or commenced treatment.
- All ICS should identify patients that have been diagnosed for two to six months prior to data collection.

Note: Biannually the metropolitan ICS will be required to identify cases to obtain an adequate sample size for nominated tumour streams.

The following table (Table 1) outlines the timeframes for the two audit rounds for 2014.

<table>
<thead>
<tr>
<th>2014 data collection schedule</th>
<th>First audit round</th>
<th>Second audit round</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tumour streams to be included in audit</td>
<td>All tumour streams</td>
<td>All tumour streams</td>
</tr>
<tr>
<td>Submit audit data</td>
<td>19 December 2014</td>
<td>19 June 2015</td>
</tr>
<tr>
<td>Data collection</td>
<td>13 Oct to 18 Dec 2014</td>
<td>1 Apr to 29 May 2015</td>
</tr>
<tr>
<td>Incorporating the 2 month time lag</td>
<td>1 July to 31 Aug 2014</td>
<td>1 Jan to 28 Feb 2015</td>
</tr>
<tr>
<td>Cancer diagnosis date timeframe</td>
<td>1 Jan 2014 to 30 June 2014</td>
<td>1 Jul 2014 to 31 Dec 2014</td>
</tr>
</tbody>
</table>

3. Patient sample

The cancer service performance indicator program requires a consistent method for the identification of the patient sample, ensuring an adequate sample size. The target population for the indicator program is newly diagnosed Victorian cancer patients meeting the criteria outlined below. All ICS must use the following method which includes the Victorian Admitted Episode Dataset and the Victorian Cancer Registry. It is acknowledged that there are still limitations to this method; however, in the absence of a linked dataset including ambulatory, radiotherapy and pathology data, this is the most appropriate approach.

3.1 Identification of the patient sample

The Victorian Admitted Episode Dataset (VAED)

- Is the first line requirement for identifying patients for the audit.
- ICD-10 diagnostic and procedural codes (provided in Attachment 1) should be used to identify a patient with a cancer diagnosis that has undergone treatment. The use of these codes will allow ICS to identify patients that have had treatment and not just watchful observation within the required timeframe and locally.
- The ICD-10 codes will include only malignant codes; benign, in-situ and uncertain tumours will continue to be excluded.

Victorian cancer patients are those receiving cancer treatment at a Victorian health service where their usual residence is a Victorian address.
• These diagnostic codes will be used to identify patients via established tumour stream names, for example genitourinary instead of prostate.
• Identification of the patient sample may require support from health service health information services.

The Victorian Cancer Registry (VCR)
• Should be used in combination with the VAED patient sample when possible.
• Patients identified via VAED should be matched with the VCR extract of newly notified cancer cases to clarify diagnosis date. This is to ensure that only newly diagnosed patients and not those with a recurrence are included.
• It is noted that the VCR is only able to provide data that has been submitted electronically by health services and does not include pathology notifications. It is important to note that this is raw, unverified data that could include incorrect / incomplete diagnosis. As the quality of electronic reporting varies across hospitals, it is not recommended as the main source for identifying patients.
• VCR has agreed to be contacted directly to obtain a copy of electronic notifications, contact Vicky Thursfield ph 9635 5162 or the Registry Operations Manager ph 9635 5000.
• It is noted that all cases of malignant cancer, in situ disease and tumours of uncertain behaviour are notifiable to VCR. At times patients maybe identified on the VCR dataset but not the VAED. These cases should be excluded from the patient sample as they may have in situ disease or uncertain behaviour.

ICS may take a blended approach to matching the VCR and VAED cases as considered appropriate locally but an informal QA process to review a subset of unmatched cases is recommended to ensure case identification is appropriate. ICS may be asked to provide evidence and justification of these processes.

An exception applies to the patient sample identification method in relation to the paediatric ICS. As the Haematology and Oncology database is widely used across all of the three facilities, it can be the source for identifying new paediatric patients.

3.2 Size and type of patient sample

The cancer service performance indicator program requires an adequate sample size to ensure the results are meaningful and can identify change in performance over time. Clinical epidemiological advice was sourced by Cancer Strategy and Development to estimate the required sample size. The sample size required to estimate percentage to within +/-5% with 95% confidence was considered as was previous ICS advice and the 2011 audit samples submitted by the ICS. The final sample for the RICS is lower than the epidemiological advice recommends but this is in part to account for the need for regional patients to travel for the treatment of some tumour streams. Similarly the MICS sample is somewhat inflated to account for the referral of patients from outside of the ICS for rarer tumour stream care.

The minimum number of records to be audited has been specified in the table following (Table 2). If this number cannot be achieved either overall or by tumour stream, a note to this effect (including an explanation as relevant) is to be provided to the department when the data is submitted.
Table 2: 2014 Audit Requirements - minimum record numbers and tumour streams by round and due dates

<table>
<thead>
<tr>
<th>Audit</th>
<th>ICS</th>
<th>Minimum Records</th>
<th>Tumour Streams</th>
<th>Date Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Metro</td>
<td>320</td>
<td>All*</td>
<td>19 Dec 2014</td>
</tr>
<tr>
<td></td>
<td>Regional</td>
<td>120</td>
<td>All*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Paediatrics</td>
<td>45</td>
<td>Paediatrics</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Metro</td>
<td>320</td>
<td>All*</td>
<td>19 June 2015</td>
</tr>
<tr>
<td></td>
<td>Regional</td>
<td>120</td>
<td>All*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Paediatrics</td>
<td>45</td>
<td>Paediatrics</td>
<td></td>
</tr>
</tbody>
</table>

Notes to Table 2:
- All* = whilst the selection of cases may aim to ensure representative data capture across the ICS and/or tumour streams it is important to avoid any obvious and/or systematic bias which would skew results. ICS may be asked to explain their case selection strategy.
- Record numbers are a minimum and ICS are encouraged to capture data above the required minimum if considered important locally.

4. Data source

The Central Medical Record

The central medical record is the source of data for the indicator program. The central medical record is considered the main medical record for a patient, and may be electronic or paper-based. It should be a central repository to ensure easy access to all relevant information. The central medical record reinforces the standard that patient information should be available to all multidisciplinary team members in a central location to promote safe care.

To promote a consistent indicator methodology, information held in locations other than the central medical record (such as MDM software, databases, stored in ICS offices or other offices) should not be included as a source of data unless otherwise recognised by the health service as a legal component of the patient's central medical record. ICS are to advise the department where these systems occur. The only exception is paediatrics, where information held in the HO database is permitted for inclusion. Printouts from databases and software programs that are then incorporated / filed in the central medical record are acceptable.

Health Services

The patient sample should be identified from a range of member health services and data collected from these across each data collection cycle. Any public or private health service included in the ICS Memorandum of Understanding (MOU) could be considered for auditing if the facility provides a reasonable volume of treatment services such as chemotherapy or radiotherapy. For example a regional hospital providing diagnostic services rather than active treatment should be excluded.

The auditing of a range of health service sites is required each cycle. For regional ICS the main host site should be included each data collection cycle and contribute at least 50% of patient cases each cycle. Alternatively (depending on relative caseloads) the top two cancer service providers in the region should account for at least 70% of the sample. This approach provides an emphasis on the monitoring of the main regional cancer centres in each RICS. Again ICS may be asked to explain and justify their sampling strategy.

The Paediatric ICS should audit across its three member health services each data collection cycle.
5. Exclusion criteria

The cancer service performance indicator program promotes appropriate and consistent collection of data.

The following exclusion criteria apply:

- Patients treated across more than one ICS should only be counted once and this should be at the site where the patient received their primary treatment including their treatment planning. If a multidisciplinary treatment recommendation from a health service in another ICS is located in the patient medical record (where it is not part of a formal linked MDM), this patient should be excluded from the data collection.
- Correspondence regarding treatment recommendations from another health service/ICS cannot be used as evidence for a different health service/ICS except under a formal intra-ICS outreach service arrangement.
- Non-Victorian residents treated in Victorian health services.

6. Performance indicators

The performance indicators being evaluated by the current medical record audit program are:

6.1 documented evidence of multidisciplinary team recommendations
6.2 documented evidence of disease staging in the multidisciplinary team recommendations
6.3 documented evidence of communication of initial treatment plan to GP
6.4 documented evidence of supportive care screening.

Each performance indicator is discussed below, including rationale, acceptable and unacceptable evidence for the performance measure, and the target for 2014 (this is the same as for 2013). The tumour stream and the health service site will also continue to be collected as additional data elements for each medical record audited. The collection tool will also allow for brief comments including the process used to identify patients (e.g. VAED, VCR, combination). The performance indicators will be presented as results by ICS and by tumour stream.
6.1 Documented evidence of multidisciplinary team recommendations

**Rationale:** Multidisciplinary care is a key component to providing best practice care for cancer patients. Documentation of multidisciplinary team recommendations in the medical record ensures such information is accessible to all team members. *Achieving best practice cancer care – A guide for implementing multidisciplinary care* (DHS, 2007) states ‘recommendations are recorded in the patient’s medical record and signed by the presenting or treating clinician’. Effective communication between all team members involved in a patient’s care is critical for maximising patient care coordination. This performance measure provides an indication of the level of documentation of multidisciplinary team recommendations in the central medical record.

<table>
<thead>
<tr>
<th><strong>Numerator</strong></th>
<th>Total number of new cancer patients with documented evidence of multidisciplinary team recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Denominator</strong></td>
<td>Total number of new cancer patients audited per tumour stream</td>
</tr>
</tbody>
</table>

**Target for 2014: 80 per cent**

*Victoria’s Cancer Action Plan 2008-2011* (VCAP) states ‘we will work to increase the number of newly diagnosed cancer patients that have a documented multidisciplinary care treatment plan … with the aim of achieving 80 per cent documentation by 2012’ (p68).

**Acceptable evidence:**

- Written summary of recommendations located in the central medical record.
- MDM outcomes or recommendations form filed in the central medical record.
- Printout from MDM meeting management software of recommendations and filed in the central medical record.
- Recommendations outlined in correspondence between medical clinicians in the central medical record.

**Not acceptable evidence:**

- Reference in the central medical record to an MDM discussion having taken place, but without the recommendations being outlined.
- A brief statement such as “medical oncology opinion” or similar.

*Note:* This performance indicator relates to ‘team recommendations’ whereas the VCAP target relates to ‘treatment plan’. This measure highlights the process required to achieve the VCAP target. The periodic multidisciplinary survey process will supplement the evaluation of policy implementation.
6.2 Documented evidence of cancer staging in the multidisciplinary team recommendations

**Rationale:** Staging is the cornerstone of treatment planning. MDT meetings across the state are working hard to include appropriately credentialed specialists to inform both clinical and histopathological staging. The patient management frameworks outline staging requirements for each tumour stream. Staging should be recorded using the AJCC staging (TNM), SEER or other accepted staging system for the disease type as endorsed by local tumour groups or MDTs. One example of a well accepted ‘other’ staging systems is ‘Dukes staging’ for colorectal cancer another is ‘FIGO’ for gynaecological cancer.

**For round 2, 2014 only** detail on the actual staging system is required. This information will be used to inform the implementation of the Improving Cancer Outcomes Act 2014 and associated changes to the Victorian Cancer Registry. An additional column has been added to the data collection template.

**Exclusions:** It is recognised that staging is not commonly available for all disease types. As such, the staging indicator is required for all tumour streams except CNS and haematology.

<table>
<thead>
<tr>
<th>Numerator</th>
<th>Total number of new cancer patients with documented evidence of cancer staging in the MDT recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denominator</td>
<td>Total number of new cancer patients with documented MDT recommendations per tumour stream (excluding CNS and haematology)</td>
</tr>
</tbody>
</table>

**Target for 2014:** 100 per cent

**Acceptable evidence:**
- As per evidence required for indicator 6.1 including a diagnosis with clinico-pathological stage noted.
- Descriptions of stage (SEER): localised, regional (locally advanced, with nodal involvement) or distant (advanced, metastatic) are all acceptable.
- For Small Cell Lung Cancer (SCLC) the use of the terms; invasive, limited or extensive are appropriate.

**Not acceptable evidence:**
- The use of descriptive terms such as extensive or invasive without the use of the staging system defined above (except SCLC).

**Notes:**
The denominator is the numerator for indicator 6.1.
6.3 Documented evidence of communication of initial treatment plan to GP (or paediatrician)

**Rationale:** The GP (or paediatrician) is a key member of a team of care providers for patients with a new diagnosis of cancer. Timely communication of a patient’s treatment plan to the GP or paediatrician will assist in enhancing the quality and coordination of care for the patient. This measure provides an indication of the level of documentation of communication of the treatment plan to the GP or paediatrician.

<table>
<thead>
<tr>
<th>Numerator</th>
<th>Total number of new cancer patients with evidence of communication of the treatment plan to the General Practitioner (or paediatrician)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denominator</td>
<td>Total number of new cancer patients audited per tumour stream</td>
</tr>
</tbody>
</table>

**Target for 2014: 100 per cent**

**Acceptable evidence:**

Evidence of communication (listed below) should be dated/sent within two weeks of multidisciplinary discussion or commencement of treatment date (whichever comes first):

- Letter to, or copied to the GP or paediatrician that communicates the treatment plan (copy located in the central medical record).
- Summary of MDM recommendations sent to the patients GP or paediatrician (copy located in the central medical record).
- Record of telephone call or email in the central medical record if it is stated that the telephone call or email outlined the treatment plan
- Discharge summaries in the central medical record for the GP that provides details of the patient’s treatment plan

**Not acceptable evidence:**

- Medical documentation (letters or discharge summaries) that do not provide details of the treatment plan.

*Note:* Where health services solely hold electronically generated discharge summaries in ICT systems such as Cerner and do not add a copy to the central medical record, this is acceptable as evidence. This information is to be noted in the data collection template.
6.4 Documented evidence of supportive care screening

Rationale: Supportive care, which addresses a wide range of needs across the continuum of care for those affected by cancer, is increasingly seen as a core component of cancer care. Improving supportive care for those affected by cancer is one of the priority areas for the ICS. This measure provides an indication of the level of documented appropriate supportive care screening.

<table>
<thead>
<tr>
<th>Numerator</th>
<th>Total number of new cancer patients with documented evidence of supportive care screening</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denominator</td>
<td>Total number of new cancer patients audited per tumour stream</td>
</tr>
</tbody>
</table>

Target for 2014: 50 per cent

The relevant target documented in VCAP states: ‘We will aim to document supportive care screening for 50 per cent of newly diagnosed cancer patients by 2012’.

Acceptable evidence:

- For adults, a completed, validated, supportive care screening tool that assesses the five inter-related domains of care (physical, social, psychological, spiritual and information) located in the central medical record (such as the Distress Thermometer and problem checklist or the Peter Mac Supportive Care Needs Tool). Evidence of validation is usually available in the published literature.
- For paediatrics, the recently validated screening tool being used in the clinical setting in Australia. The use of the social work screening tool will no longer be considered adequate evidence. The results will continue to be reported separately from the state-wide data.
- If the medical record includes documentation that a patient declined to complete screening, this will be considered that the individual has been screened. However, it must be noted in the comments section that screening was declined.

Not acceptable evidence:

- Informal referral notes in the central medical record.
- A note stating that screening was undertaken without detailing outcomes.
- Evidence of supportive care assessment without evidence of screening.
- A supportive care screening tool that is located in a place other than the central medical record (the paediatric HO database is considered a central medical record for this purpose).
7. Data elements

7.1 Tumour stream

**Rationale:** To enable analysis of cancer performance indicators by tumour stream thus directing quality improvement activities to areas of need. ICS will be required to record the tumour stream for all cases recorded in the performance audit. The 2014 data collection sheets have been updated to reflect these options.

**MICS & RICS Options:**
- breast
- central nervous system
- colorectal
- endocrine and thyroid
- haematological
- genitourinary
- gynaecological
- head and neck
- lung
- upper gastrointestinal
- skin

**PICS Options:**
- haematological cancer
- central nervous system (CNS) tumour
- solid tumour.

7.2 Health service / hospital site

**Rationale:** Auditing medical records from a range of health services will better represent the care provided to those affected by cancer throughout Victoria.

**Options:** Auditor to record the name of, or the VAED code, for the health service / hospital site housing the medical record. The Department would prefer ICS listed the name of health services included in the indicator program.

8. Submission of data

The data is to be collected using the Excel file, *Data Collection Template 2014* (see Attachment 2). All data from each cycle will be listed on this sheet with the tumour streams grouped or on separate sheets. ICS are to add or remove lines depending on the number of patient medical records audited. A brief comments section is provided for data explanation, notes or suggestions.

Data and information must be reviewed locally and be approved by the program manager/director prior to submission. It should be noted that the department provides funding to the ICS to enable audits to be undertaken and compliance is a requirement of the ICS funding.

The ICS are also reminded that the collection and reporting of accurate data is required as per the Financial Management Act 1994. Adequate data must be submitted and notification of any data errors must occur in a timely manner to the Cancer Strategy and Development section.
9. Definitions

**Financial Management Act 1994 (Standing Order 3.4.13)**

Public Sector Agencies must take reasonable steps to ensure that data is accurate and adequate when it is collected, and that its accuracy is maintained during subsequent use and reporting. The standard for accuracy and adequacy is to be determined by reference to what is expected for the purposes of effective risk management and financial and operational reporting.


**ICD-10 coding**


**Multidisciplinary care (MDC)**

An integrated team approach to health care in which medical and allied health care professionals consider all relevant treatment options and develop collaboratively an individual treatment plan for each patient (National Breast Cancer Centre, 2005).

**Multidisciplinary meeting (MDM)**

A scheduled meeting of core and invited team members for the purpose of prospective treatment and care planning of newly diagnosed cancer patients as well as those requiring review of treatment plans or palliative care. Note: Retrospective case review is a valuable approach to multidisciplinary learning, review and audit of prospectively planned treatment and care; however, it cannot replace multidisciplinary prospective treatment and care planning (Department of Human Services, 2006).

**MDM Software**

ICT systems designed specifically for the management and administration of cancer care coordination services and multidisciplinary team meetings (e.g. CANMAP).

**Multidisciplinary team (MDT)**

Team comprising health care practitioners required for all treatment and care decisions in a particular tumour stream. Team members can be from the primary, community and acute sectors, public and private sector and can be from several health services. Core team members will commonly include radiologists, pathologists, general practitioners, surgeons, physicians, medical oncologists, palliative care practitioners, radiation oncologists, social workers and/or psychologists, oncology nurses, data managers, allied health and research nurses (Department of Human Services, 2006).

**Performance Indicator**

A performance indicator is a statistic or other unit of information which reflects, directly or indirectly, the extent to which an anticipated outcome is achieved or the quality of the processes leading to the outcome. Performance indicators are one source which informs an evaluation process and may help to identify or flag further issues or questions.

**Referral**

The patient management frameworks provide details of referral requirements for a variety of tumour types. A referral letter, form or note must be signed and dated by the referring practitioner.
Staging systems

- TNM Classification of Malignant Tumours (UICC)
- Durie & Salmon for multiple myeloma staging
- French-American-British (FAB) for leukaemia classification
- Australian Clinico-Pathological Staging (ACPS) System for colorectal cancer
- International Federation of Gynecologists & Obstetricians (FIGO) for gynaecological cancers
- Dukes/Modified Dukes for colorectal cancer
- Ann Arbor staging system for lymphomas
- Binet Staging Classification for chronic lymphocytic leukaemia
- Rai staging system for chronic lymphocytic leukaemia
- Chronic Myeloid Leukaemia (CML) staging system
- International Staging System (ISS) for myeloma
- American Joint Committee on Cancer (AJCC) Cancer Staging Manual

Supportive care

Supportive care includes five inter-related domains of care: physical, social, psychological, spiritual and information (Department of Human Services, 2009). Physical domain includes a wide range of physical symptoms that may be acute, relatively short-lived or ongoing, requiring continuing interventions or rehabilitation (NBCC and NCCI 2003). Social domain includes a range of social and practical issues that will impact on the individual and family such as the need for emotional support, maintaining social networks, and financial concerns (NICE 2004). Psychological domain includes a range of issues related to the person’s mental health wellbeing and personal relationships (NBCC and NCCI 2003). Spiritual domain focuses on the person’s changing sense of self and challenges to their underlying beliefs and existential concerns (NICE 2004). Information domain transects the above domains with people needing to access information about their disease and treatment, support services and the health system overall (NBCC and NCCI 2003).