

# Improving chemotherapy quality and safety – VicTAG chemotherapy audit toolkit

Shaun O'Connor,<sup>1</sup> Adam Chapman,<sup>2</sup> Helen Matthews<sup>1</sup>

1. Victorian Therapeutics Advisory Group, Victoria, Australia

2. Cancer Services and Information, Department of Health and Human Services, Victoria, Australia

## OVERVIEW

**Problem:** Only 27 per cent of health services in Victoria retrospectively audited their chemotherapy prescribing in 2016.

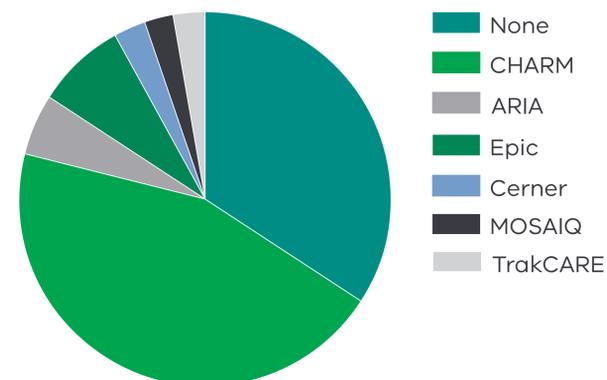
**Context:** Significant chemotherapy quality incidents occurred in New South Wales and South Australia in 2015 and 2016. These issues related to systematic underdosing of carboplatin in head and neck cancer and incorrect loading of frequency into an electronic prescribing system (EPS), resulting in underdosing of cytarabine in acute leukaemia. In response, the Victorian Department of Health and Human Services audited Victorian health services on their chemotherapy prescribing quality processes.

**Response:** We are developing a chemotherapy audit toolkit to provide health services with guidance and piloted methods for its use in auditing chemotherapy prescribing.

## DEVELOPING THE CHEMOTHERAPY AUDIT TOOLKIT

- We consulted with the sector to explore current methods of auditing used in health services. This was completed via either an on-site interview or teleconference and included 14 public and private services in Victoria as well as some other Australian providers.
- We explored statewide distribution of an EPS via a separate survey because the toolkit would need to include advice for each implemented program. The pie chart at Figure 1 shows the EPS that are currently implemented or have begun implementation across Victoria (planned but unfunded implementations are not included).

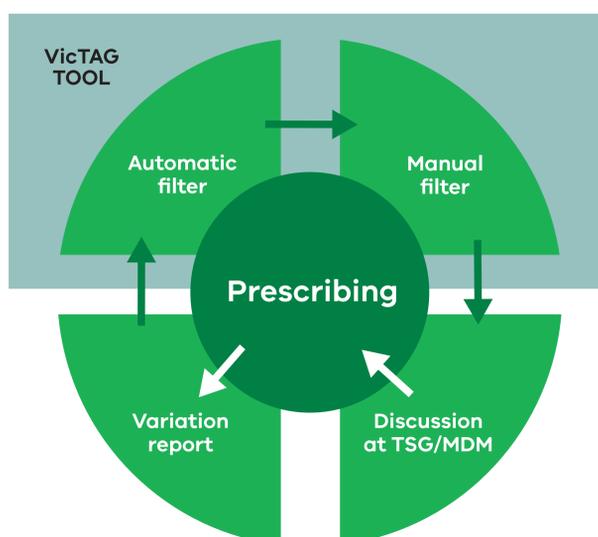
Figure 1: Oncology EPS Distribution in Victoria – currently implemented or have begun implementation



## GOVERNANCE PROCESS FOR THE AUDIT TOOLKIT

- The audit tool provides a method of filtering reports of dose variations to highlight significant changes for review by any of: tumour stream group (TSG) of clinicians, multidisciplinary meetings (MDM) or head of unit.
- The project reference group has developed manual filtering criteria (variations that can be excluded from discussion). These are:
  - rounding < 10 per cent or within institutional guidelines
  - evidence-based dose reductions for toxicity (local protocols or EviQ where there is no local protocol)
  - alterations due to organ dysfunction
  - variations to supportive care (such as antiemetics and steroids if used for nausea)
  - temporary timing changes caused by the patient's condition or the availability of a chemotherapy day unit
  - dose capping as per documented institutional policy or evidence-based guidelines (such as obesity and carboplatin dosing based on an institutionally agreed Cockcroft-Gault equation)
  - clinical trials.
- This review provides an internal mechanism to review prescribing and discuss variations from accepted health service protocols.

Figure 2: VicTAG tool process

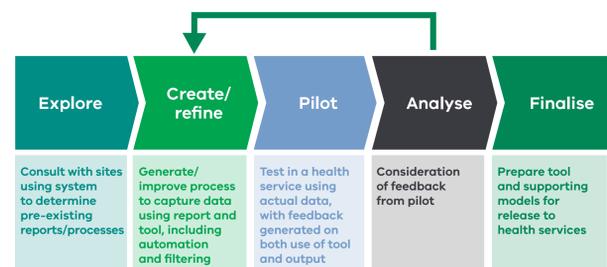


- The toolkit will also provide a quality framework that provides recommendations for minimum standards involving:
  - approval and implementation of protocols
  - variation management by pharmacy and nursing staff.

## PILOTING THE AUDIT TOOLKIT

- For each EPS currently implemented in Victoria, initial work focused on exploring the utility of existing reporting functionality:
  - A CHARM report and tool has been developed and piloted across multiple institutions around Australia.
  - A report for ARIA is being developed and will be piloted shortly.
  - Epic's reports are currently being explored.
  - Initial testing with Cerner has shown there is no standard report that could be used with the toolkit. Cerner implementations also have different configurations, with data warehouses creating elements that are not always consistent between implementations and therefore solutions may not always be transferable to other health services. A solution to assist health services is being investigated.
- Piloting work has begun for health services without an EPS.

Figure 3: Pilot process



## FEEDBACK ON THE TOOLKIT

- The audit tool was tested with hospitals using CHARM.
- Feedback from these test sites has found that the audit tool is relatively easy to use, has a small time burden for health professionals and can be integrated with existing oncology department structures.
- 50 per cent of sites that provided formal feedback are currently using the tool as part of their quality processes. The remainder are determining systems that best integrate the report output into their quality processes.

## FUTURE DIRECTIONS

The chemotherapy audit toolkit, including the quality framework, will undergo further piloting and consultation before being released later this year.

For more information or if you would like to pilot the tool in your centre, please contact Shaun O'Connor at <[projectmanager@victag.org.au](mailto:projectmanager@victag.org.au)>.