<table>
<thead>
<tr>
<th>Indicator</th>
<th>Summary of updates</th>
<th>Consultations</th>
<th>Cleared by NSW TAG review committee</th>
</tr>
</thead>
</table>
| 1.1 Percentage of admitted adult patients that are assessed for risk of venous thromboembolism | • high, moderate or low risk removed (in line with NHMRC guidelines)  
• Limitations and Interpretation amended to reflect new terminology  
• Location of data amended to include where applicable on the inpatients medication chart  
• References updated | ACSQHC VTE specialist group  
Ms Helen Stark, ACSQHC TAG review committee                                                                                                         | ✓                                                                                                     |
| 1.2 Percentage of patients at high risk of venous thromboembolism that receive appropriate prophylaxis | Title changed to: Percentage of patients risk assessed as requiring venous thromboembolism prophylaxis that receive appropriate prophylaxis  
• References updated | ACSQHC VTE group  
Ms Helen Stark, ACSQHC TAG review committee                                                                                                         | ✓                                                                                                     |
| 1.3 Percentage of patients prescribed enoxaparin whose dosing schedule is appropriate | • Decided to keep indicator relevant to both prophylactic and therapeutic use of enoxaparin.  
• TAG review committee discussed continuing validity of “If either the indication for enoxaparin therapy or the patient’s weight is not recorded on the medication chart, the dose is assumed to be inappropriate.”  
Agreed that in the interests of clarity and accuracy, behaviour change should be driven by retaining this requirement.  
• References updated | TAG review committee                                                                                                                                    | ✓                                                                                                     |
| 1.4 Percentage of patients prescribed hospital initiated warfarin whose loading doses are consistent with a DTC approved protocol | • Essentially unchanged  
• References updated | Emeritus Professor Lloyd Sansom, Chair, Committee of Review of Anticoagulation Therapies in Atrial Fibrillation, Dept, of Health & Ageing.; TAG review committee | ✓                                                                                                     |
<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
<th>Proposed Changes</th>
<th>References</th>
</tr>
</thead>
</table>
| 1.5 Percentage of patients with an INR above 4 whose dosage has been adjusted or reviewed prior to the next warfarin dose | • Essentially unchanged whilst warfarin is widely used.  
• Considered method of data collection criterion of one measurement count per episode of care vs per patient only – rationale for retention of latter was to include rural hospitals without easy access to pathology labs.  
• References updated | | Karen Kaye, NPS.  
TAG review committee |
| 1.6 Percentage of patients with atrial fibrillation that are discharged on warfarin | • Agreed that we should not distinguish between valvular or non-valvular atrial fibrillation.  
• On expert recommendation, included Tables 1 and 2 – CHA$_2$DS$_2$-VASc and HAS-BLED scoring systems and retained warfarin contraindications table for user clarification.  
• Retain indicator as is. Reserve future amendment to “discharged on an oral anticoagulant”  
• References updated | ANZ College of Cardiology for advice on how to adjust re oral anticoagulants.  
Emeritus Professor Lloyd Sansom, Chair, Committee of Review of Anticoagulation Therapies in Atrial Fibrillation, Dept. of Health & Ageing. Results not expected for 18 months or so.  
Prof. Terry Campbell, University of NSW  
TAG review committee | |
| 2.1 Percentage of patients undergoing specified surgical procedures that receive an appropriate prophylactic antibiotic regimen | • Retain as is – in compliance with Therapeutic Guidelines.  
• References updated | Vic NISS –indicators for level of surveillance only.  
TAG review committee | |
| 2.2 Percentage of prescriptions for restricted antibiotics that are concordant with DTC approved criteria | Use of term “antimicrobial” to be explored as this is a currently used term in the context of antimicrobial stewardship.  
Since the indicator uses a relatively small sample size, if the indicator was expanded to include all three groups of antimicrobials, would the numbers adequately reflect use of each medicine? If resistance and appropriate use of antifungal and antiviral agents is of concern they should be included as future separate indicators rather than combining with antibiotics. | Karen Kaye, NPS  
David Kong, Monash Uni  
Prof. L. Gilbert., Sydney West Area Health Service  
TAG review committee | |
Indicators for QUM in Australian Hospitals 2007 – Update Summary and consultations

<table>
<thead>
<tr>
<th>2.3 Percentage of patients with a toxic or sub-therapeutic aminoglycoside concentration whose dosage has been adjusted or reviewed prior to the next aminoglycoside dose</th>
</tr>
</thead>
</table>
| Change to two indicators:  
   a) Percentage of patients in whom empirical aminoglycoside therapy is continued beyond 48 hours.  
   b) Percentage of patients with a measured toxic or sub-therapeutic aminoglycoside concentration after 72 hours whose dosage has been adjusted or reviewed using AUC monitoring prior to the next aminoglycoside dose. |
| Prof. L. Gilbert, Sydney West AHS  
Mr Greg Roberts, SA Health Dept.  
Mr David Kong, Monash University VIC  
Prof. Sarah Hilmer, Sydney University, NSW  
Prof. Andrew McLachlan, Sydney University, NSW  
TAG review committee  
A/Prof Madlen Gazarian |

<table>
<thead>
<tr>
<th>2.4 Percentage of adult patients with community acquired pneumonia that are assessed using an appropriate validated objective measure of pneumonia severity</th>
</tr>
</thead>
</table>
| Amended background and evidence to describe Severity scoring systems (eg CORB (1), SMART-COP) (2) (3) instead of PSI as the primary tools which may be used.  
(Advice received that much of the initial assessment (initiation of treatment) of the patients presenting with community acquired pneumonia is undertaken in the Accident & Emergency (A&E) departments of the hospitals.)  
TSANZ : We support the use of validated severity index(es) being part of a quality of care measure for the treatment of CAP and would encourage it. There is good research to show this does improve patient outcomes, at least in the US and in Europe.  
There is really very little to choose between them and each has its strengths and weaknesses.  
CURB-65 and PSI have the best data for improving outcome. SMART-COP is Australian in origin so should have good local validity. |
| The Thoracic Society of ANZ A/Prof Peter Wark, Chair Clinical Care and Resources Subcommittee  
Professor Grant Waterer (University of Western Australia) on behalf of the infectious disease special interest group TSANZ  
Prof. Paul Seale, Sydney Uni  
Dr Alana Killen, ACEM  
TAG review committee  

2 new/ modified indicators recommended for wider consultation & field-testing
<table>
<thead>
<tr>
<th>2.5 Percentage of patients presenting with community acquired pneumonia that are prescribed guideline concordant antibiotic therapy</th>
<th>Amendment to Background and Evidence: Recommended predictive tools for adult requirements for intensive respiratory or vasopressor support amended to include CORB or SMART-COP &amp; severity-of-illness scores, such as the CURB-65 criteria, or prognostic models, such as the Pneumonia Severity Index (PSI/PORT)</th>
<th>ASID Tom Gottlieb. ACEM CEO Dr Alana Killen Dr Andrew Gosbell, Director of Policy and Research Australasian College for Emergency Medicine (ACEM) TAG review committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Percentage of patients whose current medications are documented and reconciled at admission</td>
<td>Definitions, description and table amended to match the ACSQHC MatchUp medicines project.</td>
<td>ACSQHC (web site material). WHO High 5s project web site definitions TAG review committee</td>
</tr>
<tr>
<td>3.2 Percentage of patients whose known adverse drug reactions are documented on the current medication chart</td>
<td>• References updated</td>
<td>TAG review committee</td>
</tr>
<tr>
<td>3.3 Percentage of medication orders that include error-prone abbreviations</td>
<td>ACSQHC list taken as penultimate list. Confirmed that subset for measurement are still relevant as most frequently troublesome. It is worth noting that similar data collection periods by SAFER and the NIMC audits have focussed on a subset of indicators, rationale being that in focussing the data collection the intervention or activity can be developed in direct response to the results.</td>
<td>CEC- Daniel Lalor (difficult to report from IIMS other than by keyword search) Several key medication safety hospital pharmacists. Medication Safety Committee of Specialty Practice, SHPA TAG review committee</td>
</tr>
<tr>
<td>3.4 Percentage of paediatric medication orders that include the correct dose per kilogram (or body surface area) and a safe total dose</td>
<td>• References updated</td>
<td>A/Prof. M. Gazarian, UNSW TAG review committee</td>
</tr>
<tr>
<td>3.5 Percentage of medication orders for intermittent therapy that are prescribed safely</td>
<td>Intermittent therapy is not regularly prescribed, hence sampling is difficult if this indicator is in any way limited. The current indicator is specific to measuring only oral methotrexate and fentanyl patches. Agreed to remove above two specific</td>
<td>Karen Kaye, NPS TAG review committee</td>
</tr>
</tbody>
</table>
### 3.6 Percentage of patients receiving cytotoxic chemotherapy whose treatment is guided by a hospital approved chemotherapy treatment protocol

<table>
<thead>
<tr>
<th>Examples and use ALL intermittent therapy, giving examples of what may be seen.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Random sample of patients prescribed and administered intermittent therapy e.g. bisphosphonates (e.g. alendronate), cytotoxics (e.g. oral methotrexate), topical opioids (e.g. buprenorphine or fentanyl patches), depot antipsychotics</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Many hospitals report use of CI-SCAT (now eviQ) or CHARM as a reference source for chemotherapy protocols rather than DTC approved regimens. CHARM is a tool facilitating chemotherapy management. It has the capacity to store locally approved protocols for use within a defined health area. It is an example of an electronic tool, which may be used to hold locally approved (DTC approved) chemotherapy protocols and should not be used to simply record what was given unless a DTC review process is in place.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicator essentially unchanged apart from inclusion of eviQ reference</td>
</tr>
<tr>
<td>References checked and retained.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Robyn Ward, Barwon Health, VIC, re use of CHARMHealth QLD for approved protocol availability / eviQ alignment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAG review committee</td>
</tr>
</tbody>
</table>

### 4.1 Percentage of post operative patients whose pain intensity is documented using an appropriate validated assessment tool

<table>
<thead>
<tr>
<th>Essentially unchanged, even though we became aware of the ACI’s development of a pilot multi-factorial pain assessment pain assessment form – not completed as yet.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Link to the NPS acute postoperative pain drug use evaluation (DUE) toolkit (<a href="http://www.nps.org.au">www.nps.org.au</a>) inserted</td>
</tr>
<tr>
<td>References updated</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dr Jenny Johnston (ACI), Lead physician Emily Edmonds. Pain CNC</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAG review committee</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>✓</th>
</tr>
</thead>
</table>

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**Final Project Report: Appendix 2**
4.2 Percentage of postoperative patients that are given a written pain management plan at discharge and a copy is communicated to the primary care clinician

- Terminology changed to reflect “discharge” or “transfer”
- References updated

Karen Kaye, NPS TAG review committee

5.1 Percentage of patients with acute coronary syndrome that are prescribed appropriate medications at discharge

- ACEI or All receptor antagonists added
- Link to The DMACS DUE Toolkit
- References updated

Karen Kaye, NPS Cardiac Society ANZ, National Heart Foundation
Prof Terry Campbell, UNSW
Dr. N. Sammel, St Vincent’s Hospital
TAG review committee

5.2 Percentage of patients with chronic heart failure that are prescribed appropriate medications at discharge

- Updates include notation of the fact that use of ACEI and ARAs is improving but that doses still need attention. Retained plus…Type of HF defined (systolic) & Heart failure specific beta blockers included.
- References updated

Cardiologists – Prof. Terry Campbell UNSW;
Dr John Atherton;
Clare Delaney, NPS
TAG review committee

Modified indicator recommended- for wider consultation & field-testing

5.3 Percentage of discharge summaries that include medication therapy changes and explanations for changes

- Little change
- References updated

TAG review committee

5.4 Percentage of patients discharged on warfarin that receive written information regarding warfarin management prior to discharge

- References updated

TAG review committee

5.5 Percentage of patients with a new adverse drug reaction (ADR) that are given written ADR information and a copy is communicated to the primary care clinician

- Nil updates needed
- Reference currency updated

TAG review committee

5.6 Percentage of patients with asthma that are given a written asthma action plan at discharge and a copy is communicated to the primary care physician.

- Little change -some revision of *Background and Evidence*.
- References updated

TAG review committee
<table>
<thead>
<tr>
<th>Indicator</th>
<th>Change Description</th>
<th>Reviewer</th>
<th>Similarity</th>
</tr>
</thead>
</table>
| 5.7 Percentage of patients receiving sedatives at discharge that were not taking them at admission | Changed to include all sedatives  
- References updated                                                                                                                                  | Prof. Andrew McLachlan, Sydney Uni. TAG review committee                   | ✓          |
| 6.1 Percentage of medication storage areas outside pharmacy where potassium ampoules are available | Considered a variation but decided to retain as presented.                                                                                          | TAG review committee                                                     | ✓          |
| 6.2 Percentage of patients that are reviewed by a clinical pharmacist within one day of admission |  
- Agreed to retain “clinical pharmacy review” terminology due to the evidence base for its benefit.  
- Terminology changes to fit in with the Medication Reconciliation process.  
- References updated & expanded                                                                                                   | Karen Kaye TAG review committee                                        | ✓          |
| 6.3 Percentage of parenteral opioid dosage units that are pethidine       | Included link to the acute post-op pain toolkit, NPS  
- References updated                                                                                                                                | TAG review committee                                                     | ✓          |
| 6.4 Percentage of submissions for formulary listing of new chemical entities for which the Drug and Therapeutic Committee has access to adequate information for appropriate decision making | Relevance maintained, even though different levels of DTC formulary listing apply throughout Australian LHDs  
- References updated                                                                                                                        | Dr. Yashwant Sinha                                                      | ✓          |