NSW tag New South Wales Therapeutic Advisory Group Inc.

Indicators for

Quality Use of Medicines

in Australian Hospitals

2012 Final Project Report

Appendix 1:Correspondence

NSW tag New South Wales Therapeutic Advisory Group Inc.

ABN 82 707 308 091

21st March 2011

Dr Jen Bichel-Findlay
Coordinator - Performance & Outcomes Service
The Australian Council on Healthcare Standards
5 Macarthur Street
Ultimo
NSW 2007

Dear Jen,

Re: Medication Safety Clinical Indicators User Manual 2011

I am writing to inform you that the NSW Therapeutic Advisory Group (NSW TAG) is currently considering a body of work to review and update the *2007 Indicators for Quality Use of Medicines in Public Hospitals*. The Australian Council on Healthcare Standards (ACHS) played a key role on the project steering committee in the development of our original indicators, and has since supported their use through adoption into the ACHS clinical indicators sets; currently within the Medication Safety chapter.

We would like to invite ACHS to once again participate in our work relating to indicators and will do so formally once the program has been finalised and a structure put in place for the update. In the meantime, is the ACSH indicator working party currently a communicating group or is it dormant until a future review is required? If it is active please could we update your records for our change in personnel? David Maxwell has now left the organisation and I (Ms Gillian Campbell) have taken over as Executive Officer. Dr Jocelyn Lowinger still looks after our medication safety program.

I would like to take the opportunity provide some feedback and ask some questions in relation to the ACHS indicators medication safety user manual 2011 which we have identified in considering our own review.

ACHS Indicator area 1: Reporting mechanisms.
Should the reporting of ADR's be to the Advisory Committee for the Safety of Medicines (ACSOM) at the Office of Medicines Safety Monitoring rather than the Office of Product Compliance?

ACSH Indicator Area 4: Medication Orders with error -prone abbreviations.
In 2008 The *Recommendations for Terminology, Abbreviations and Symbols used in the Prescribing and Administration of Medicines* were endorsed by the Australia Commission on Safety and Quality In Health Care (ACSQHC). This document is now maintained and updated by the ACSQHC. The list specified in the ACHS manual has been updated by the ACSQHC and you may wish to review the content in further updates.
http://www.safetyandquality.gov.au/internet/safety/publishing.nsf/Content/NIMC_001_NTAS

ACSH Indicator area 5: Warfarin Management
The notes reference TAG for CI 5.4 and 5.5 but has missed 5.3 (= NSW TAG QUM indicator 5.4)

Indicator area 6: Aminoglycoside monitoring
This is an extremly difficult yet topical area for monitoring. Feedback from our own networks suggest that monitoring of this is not practical. Has ACHS received many data points from hospitals in measuring this indicator?

A recent change in recommendations for prescribing aminoglycosides adds further complexity in the use of Area Under the Curve (AUC) methodologies for calculating next dose and measuring toxicity[1] [2].

This particular indicator will be a target for review in the planned NSW TAG update. We will be particularly interested in working with you and hearing your experiences in relation to this indicator.

I look forward to working with you, and in hearing any information which you can share in relation to the ACSH medication safety indicators.

Kind regards,

Gillian Campbell
Executive Officer

[1] Therapeutic Guidelines: Antibiotic (2010)

[2] Australia Medicines Handbook (2011)

New South Wales Therapeutic Advisory Group Inc.

ABN 82 707 308 091

Prof Cliff Hughes,
Chief Executive Officer
Clinical Excellence Commission
Locked Bag A4062
Sydney South
NSW 1235

11th April 2011

Dear Cliff,

Following discussions we had late last year, the NSW Therapeutic Advisory Group are undergoing contract negotiations with the Australian Commission in Safety and Quality in Health Care (ACSQHC) to review the current published *Indicators for Quality Use of Medicines in Australian Hospitals*. The ACSQHC have agreed to fund the update whilst allowing NSW TAG to retain copyright and intellectual property of the material. The current product is co-branded with the Clinical Excellence Commission (CEC) since this work was created in partnership with, and funded by the CEC. I wish to seek your permission to continue this co-branding in the revised version. The CEC will of course be invited to participate in the review process including the provision of information regarding relevance and priority of any amended content. At this stage the funding agreement is to evaluate the use of the current indicator set, ensure currency with national guidelines and update as necessary. We will not be creating or piloting any new indicators. In parallel with this work we will be undertaking a scoping study to identify the role of a web based reporting system. This will include identifying who the best agency may be for holding, owning and maintaining this data.

I would also like to take this opportunity to thank you for your leadership and support in driving the initiative in encouraging the ACSQHC to support the state based organisations.

If you are supportive of the CEC maintaining is co-branding with NSW TAG on the manual for *Indicators for Quality Use of Medicines in Australian Hospitals*, please could you provide this to me in writing.

Yours Sincerely,

Gillian Campbell
Executive Officer

CLINICAL
EXCELLENCE
COMMISSION

Gillian Campbell
Executive Officer
NSW TAG
PO Box 766
DARLINGHURST NSW 2010

5th May 2011

Ref: D11/2149

Dear Gill,

Thank you for your correspondence dated 11th April 2011 regarding review of the *Indicators for Quality Use of Medicines in Australian Hospitals.*

The relationship between NSW TAG and the CEC has been one of mutual benefit over a period of some years and we hope to continue a close working relationship in the future.

We would be pleased to have the manual of *Indicators for Quality Use of Medicines in Australian Hospitals* co-branded as a NSW TAG / CEC document. We would also be happy to contribute to any review of the indicators.

It is pleasing to see that you will be conducting a scoping study for the use of a web based reporting tool. Such a tool has been a great strength of the Medication Safety Self Assessment program and has assisted in demonstrating the use of the tool as well as providing data on where efforts to improve medication safety should be focussed.

Thank you for the opportunity to continue to be associated with the *Indicators for Quality Use of Medicines in Australian Hospitals.*

Yours sincerely

Clifford F Hughes AO
CLINICAL PROFESSOR
CHIEF EXECUTIVE OFFICER

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New South Wales Therapeutic Advisory Group Inc.

Dr. Michael Ward
Honorary Secretary, The Cardiac Society of Australia and New Zealand
Department of Cardiology, Royal North Shore Hospital
Pacific Highway
ST LEONARDS NSW 2065

27th October 2011

Dear Dr. Ward,

Re: **Indicator quantifying anticoagulant use in atrial fibrillation patients.**

The NSW Therapeutic Advisory Group is an independent, not-for profit association funded by the NSW Department of Health. Our members are clinical pharmacologists, pharmacists and other clinicians from the teaching hospitals of NSW and affiliated academic units.

Our goal is to promote quality use of medicines by sharing unbiased, evidence-based information about drug therapy.

Our objectives are:

To investigate and evaluate new initiatives in therapeutics
To support drug and therapeutics committees
To promote rational, high quality, cost-effective use of medicines in public hospitals and the wider community

In 2007, a set of process indicators were developed by NSW TAG to measure quality use of medicines in Australian Hospitals; *Indicators for Quality Use of Medicines in Australian Hospitals*[i]. The indicators were tested, validated and published with the support of the Clinical Excellence Commission. Since that time, the set of indicators has been extensively utilised by many Australian hospitals, primarily for the purpose of demonstrating practice improvement. They have been designed also, to facilitate future cross-site comparison.

The indicators are currently in the process of review and update. NSW TAG would like to seek the assistance of your Society membership in adding currency to indicator 1.6:

1.6 Percentage of patients with atrial fibrillation that are discharged on warfarin.

The purpose of this indicator is to address effectiveness of processes that encourage judicious use of preventative pharmacotherapy in patients at risk of stroke. Key definitions for measuring and collecting data for this indicator are available online within the indicator manual.

Promoting the quality use of medicines
P.O. Box 766 Darlinghurst NSW Australia 2010 • **Telephone +61 2 8382 2852** • Fax +61 2 8382 3529
Email: nswtag@stvincents.com.au • Web: www.nswtag.org.au
An initiative of NSW clinical pharmacologists & pharmacists. Funded by the NSW Department of Health.

Our questions for the CSANZ are:

1. What is the current state of best practice in Australia in use of anticoagulation for ongoing prophylaxis of cerebral thromboembolism in patients with atrial fibrillation?
2. Are the newer oral anticoagulants (e.g. rivaroxaban, dabigatran) yet considered an acceptable alternative to warfarin sodium? And if so, should this indicator be amended to measure patients that are discharged on oral anticoagulants rather than warfarin alone?
3. Do you feel it is necessary for us to differentiate between valvular and non-valvular fibrillation for the purpose of this indicator?
4. In the 2007 published indicator, anti-platelet agents were not included as an acceptable alternative to warfarin due to the clear superiority of warfarin (in patients under the age of 80 years). Is this still the consensus opinion, or is there a greater role for these agents?

We would appreciate your members' views and assistance in allowing us to add currency and value to this indicator. If we could receive your response by mid November, 2011 it would be of assistance.

With thanks,
Yours sincerely,

Mrs Gillian Sharratt
Executive Officer

Attachment: QUM Indicator 1.6

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[i] Indicators for Quality Use of Medicines in Australian Hospitals: NSW Therapeutic Advisory Group, 2007. www.nswtag.org.au

Ms Karen Kaye
Executive Manager Quality Use of Medicines
Deputy Chief Executive Officer
NPS: Better choices, Better health

3rd January 2012

Dear Karen,

Re: Indicators for Quality Use of Medicines in Australian Hospitals

The NSW Therapeutic Advisory Group (NSW TAG) is currently undertaking a review of the 2007 NSW TAG/CEC Indicators for Quality Use of Medicines in Australian Hospitals (QUM Indicators). I would like to request a meeting with you to discuss the work we are undertaking in order to establish some further background to the detail contained in a couple of the indicators which were developed under your careful guidance and also to seek advice and permission where relevant from NPS: Better Choices, Better health (NPS) to include information relating to projects that NPS has coordinated since 2007 in any revision of the indicators. If you have any time in the next two weeks I would be most appreciative.

To provide some context to the request, NSW TAG has undertaken a survey which has received responses from 36 hospitals nationally regarding the use and uptake of the *QUM Indicators*. We have also undertaken a literature review by means of a gap analysis in identifying changes to clinical practice which have occurred since 2007 and therefore may require alterations to the published indicators.

In reviewing the responses of the survey and current literature a number of questions have been raised and I would like to seek your expert opinion in ensuring that NSW TAG follows the correct path in the review of the *QUM Indicators*. I have listed below the specific indicators and some questions which I would like to discuss, however I would appreciate any guidance to the general process in which we are undertaking. The full indicator manual is available for viewing at www.nswtag.org.au

Additionally there is scope for NSW TAG to work with the Australian Commission in Safety and Quality in Health Care to develop new indicators and also to create a system for centralised reporting of the QUM indicators. This might enable hospitals with the ability to monitor their practice over time, and where relevant enable inter-hospital comparison. If you are able to recommend me to talk to anyone with experience in this area of data collection and data management within NPS I would be grateful of the contact.

Promoting the quality use of medicines
P.O. Box 766 Darlinghurst NSW Australia 2010 • **Telephone +61 2 8382 2852** • Fax +61 2 8382 3529
Email: nswtag@stvincents.com.au • Web: www.nswtag.org.au
An initiative of NSW clinical pharmacologists & pharmacists. Funded by the NSW Department of Health.

QUM Indicators

1.5 Percentage of patients with an INR above 4 whose dosage has been adjusted or reviewed prior to the next warfarin dose.
Q: This indicator measures each patient once only. What was the rationale for only measuring each patient and not each occasion of an elevated INR?

2.2 Percentage of prescriptions for restricted antibiotics that are concordant with Drug and Therapeutics Committee approved criteria.
Q: Antimicrobial stewardship is an area of much interest and this indicator is clearly still very relevant. We wonder however it would be appropriate to expand the criteria from antibiotics to antimicrobials so as to include antifungals and antiviral agents.

3.3 Percentage of medication orders that include error-prone abbreviations
Q: When this indicator was developed the definition of error prone abbreviations included only a subset of the TAG abbreviations table. The list of error-prone abbreviations has since been adopted by the ACSQHC and is updated as required. Should this indicator continue to focus on a select sample of abbreviations or be expanded to the full list?

3.5 Percentage of medication orders for intermittent therapy that are prescribed safely
The current indicator is specific to measuring only oral methotrexate and fentanyl patches. What was the rationale for including only these two medications? Could this be expanded to other intermittent medications e.g. buprenorphine patches? Why were intermittent IM or IV medications e.g. depot antipsychotics excluded?

3.6 Percentage of patients receiving cytotoxic chemotherapy whose treatment is guided by a hospital approved chemotherapy protocol
This indicator has received poor uptake, with many hospitals reporting the use of CI-SCAT or CHARM as a reference source for chemotherapy protocols rather than DTC approved regimens.

4.1 Percentage of postoperative patients whose pain intensity is documented using an appropriate validated assessment tool.
We would like to seek permission to provide a link to the NPS APOP toolkits for further information.

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 physician
We would like to seek permission to provide a link to the NPS APOP toolkits for further information.

5.1 Percentage of patients with acute coronary syndrome that are prescribed appropriate medications at discharge
This indicator defines appropriate medications as antiplatelets or anticoagulants, beta-blockers and statins. It does not examine the use of ACE Inhibitors or Angiotensin II receptor antagonists (ARAs). However since the publication of this indicator the NPS coordinated DMACS program (2008-2010) looked at the discharge management of the same patient group and did include ACE inhibitors or ARAs as a guideline recommended medication. Since the indicator and DMACs program use the same referenced guideline should the TAG indicator be updated list 4 rather than 3 appropriate medications?

5.2 Percentage of patients with chronic heart failure that are prescribed appropriate medications at discharge
Only two hospitals have reported undertaking this indicator with many stating that they had been unable to prioritise this indicator as an area for work. We note that a 2010 NPS review of GP databases has shown significant improvement in this area with 90% of CHF patients receiving ACE inhibitors/ARAs. Is this indicator still relevant for measurement? Have other factors for CHF patients in acute care been

identified, noting that titration to an optimal dose is not possible during the usually short inpatient stay periods.

6.2 Percentage of patients that are reviewed by a clinical pharmacist within one day of admission

There is some discussion as to the terminology for this indicator to reflect the person undertaking the task or the completion of the task of pharmaceutical review. Should it remain as clinical pharmacist review, or be altered o reflect pharmaceutical review?

Many thanks for any assistance that you are able to provide with this project,

Kind regards,

Gillian Sharratt
Executive Officer

From: Lloyd Sansom <Lloyd.Sansom@unisa.edu.au>
To: NSW TAG <nswtag@stvincents.com.au>
Date: 1/3/2012 4:37 pm
Subject: Re: AF review and NSW TAG QUM Indicators

Dear Gill,The review will not competed until mid year. It would seem that the indicator should simply state anticoagulant/antothombotic. For patients with NVAF with a CHADS score of one ,the approriate drug is Aspirin and thst would not be picked up with the current indicator
.Th newer agents will have a place-it is yet to be determined what that plCe may be
Lloyd
Sent from my iPad

On 03/01/2012, at 3:55 PM, "NSW TAG" <nswtag@stvincents.com.au> wrote:

> Dear Lloyd,
>
> NSW TAG is currently reviewing its 2007 Indicators for QUM in Australian
> Hospitals. This includes indicator 1.6: Percentage of patients with atrial
> fibrillation that are discharged on warfarin. This area of QUM is obviously of
> much debate at the moment and we note the DOHA consultation and review of
> anticoagulant therapies in atrial fibrillation that you are currently leading.
>
>
> There has been discussion suggesting that this indicator perhaps be amended to
> "percentage of patients with atrial fibrillation that are discharged on oral
> anticoagulants" however we are lacking clear practice guidance from national
> bodies (other than PBS) to support this.
>
> We wondered if you would be able to advise on the anticipated time line for the
> DOHA review and the possible actions as a result?
>
> NSW TAG is hoping to publish a February 2012 edition of the QUM Indicators and so
> your advice would be appreciated in how we consider this indicator in the
> meantime. I appreciate that you will not have completed your body of work by this
> time. Should we be acknowledging the introduction of novel oral anticoagulants in
> the management of patients with AF, or perhaps we retain it as is with warfarin
> listed as the primary medicine of choice, but perhaps include a footnote or
> limitation noting the arrival of novel oral anticoagulants and the review that is
> in progress?
>
> Many thanks in advance for your assistance,
> Kind regards,
>
> Gill
>
>
> Gillian Sharratt
> Executive Officer
> NSW Therapeutic Advisory Group
> PO Box 766
> Darlinghurst
> NSW 2010
> 02 8382 2852
>
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THE THORACIC SOCIETY OF AUSTRALIA & NEW ZEALAND

The Thoracic Society of Australia and New Zealand Ltd
GPO Box 1491, Sydney, NSW, 2001
Telephone: (02) 9222 6205
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A/Prof Peter Wark
Chair Clinical Care and Resources Subcommittee

Ms Penny Thornton,
Project officer, NSW TAG
pthornton@stvincents.com.au

Re: Use of severity scoring systems in the evaluation of community acquired pneumonia

Dear Penny,

Thank you for approaching the TSANZ for review of your amendment. This has been reviewed by Professor Grant Waterer (University of Western Australia) on behalf of the infectious disease special interest group of the society.

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.

Yours sincerely

Peter Wark

Gillian Campbell - Re: Clinical Indicators - a question?

From: Lyn Gilbert <lyn.gilbert@sydney.edu.au>
To: Penny Thornton <pthornton@stvincents.com.au>
Date: 1/9/2012 1:37 pm
Subject: Re: Clinical Indicators - a question?

Dear Penny
Yes, of course I remember you well.
The changes you suggest seems fine to me. The first one is straightforward and appropriate in view of increasing use range of available antiviral and anfungal agents.
The other ones are also appropriate but I wonder whether another more basic one is appropriate – namely "proportion of patients in whom empirical amino glycoside therapy is discontinued after 72 hours? I don't know what the likely answer is, but I suspect that, without fairly careful monitoring by pharmacists (who seem to be in short supply) amino glycosides are probably often continued after being stared empirically without specific indication or authorisation.
Best wishes

Lyn

Professor Lyn Gilbert,

Clinical Lead, Infection Prevention & Control
Western Sydney Local Health Network

Director, Centre for Infectious Diseases & Microbiology-Public Health
http://www.cidmpublichealth.org/

Sydney Institute for Emerging Infectious Diseases and Biosecurity, University of Sydney
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Level 3, Institute of Clinical Pathology & Medical Research,
Westmead Hospital. PO Box 533, Wentworthville
New South Wales, Australia 2145

Phone (+612) 98456252
Mobile 0423593385
email lyn.gilbert@sydney.edu.au
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From: Penny Thornton <pthornton@stvincents.com.au>
Date: Mon, 9 Jan 2012 10:27:51 +1100
To: Lyn Gilbert <l.gilbert@usyd.edu.au>
Subject: Clinical Indicators - a question?

Dear Prof. Gilbert,
I don't know if you remember me - I used to be secretary of the Westmead Drug

Committee and Deputy Director of Pharmacy for many years. I moved on to be Pharmacy Services Manager at the Children's Hospital Westmead, then Principal Advisor in Medication Safety to the NSW Dept. of Health. I'm now working part time for NSW Therapuetic Advisory Group on a project involving revision and updating of the Indicators for Quality Use of Medicines inAustralian Hospitals 2007. It is in this latter context tha I need your advice.

I have left a message for you to phone me but if you read this first, an email reponse will be fine!
1) We currently have an indicator - 2.2 Percentage of prescriptions for restricted antibiotics that are concordant with Drug and Therapeutics Committee approved criteria. We would like to amend this terminology to use the word antimicrobials instead of antibiotics in line with the latest antimicrobial stewardship agenda. I wonder if you agree with broadening the scope of this indicator in this way in view of your work with the update to Therapeutic Guidelines?

2) Indicator 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.
Clearly with the revision to Therapeutci Guidelines this indicator is no longer workable. We would like to change it as follows.
2a) Percentage of patients prescribed and administered empirical aminoglycoside therapy (up to 72 hours) whose dose is correct for age, weight and renal function.
2b) Percentage of patients receiving directed aminoglycoside treatment (post 72 hours) whose dosage has been reviewed and adjusted using AUC methodology prior to the next aminoglycoside dose.

So my question is - do you agree with these changes? Do you have any furthe comments or ideas on how these indicators could be better expressed?
with thanks - kind regards,
Penny

Penny Thornton
NSW Therapeutic Advisory Group
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Gill Sharratt met with Karen Kaye, Debbie Carter, Clare Delaney and Jeff Elliott on Wednesday 11th January.

QUM Indicators

1.5 Percentage of patients with an INR above 4 whose dosage has been adjusted or reviewed prior to the next warfarin dose.

Q: This indicator measures each patient once only. What was the rationale for only measuring each patient and not each occasion of an elevated INR?

A: This was a pragmatic decision based on feedback from test hospitals that there were not systems in place to identify each occasion of an elevated INR. For the purpose of the indicator and a consensus on method for data collection it was decided that each patient only be measured once.

2.2 Percentage of prescriptions for restricted antibiotics that are concordant with Drug and Therapeutics Committee approved criteria.

Q: Antimicrobial stewardship is an area of much interest and this indicator is clearly still very relevant. We wonder however it would be appropriate to expand the criteria from antibiotics to antimicrobials so as to include antifungals and antiviral agents.

A: At the time of development the environment suggested that resistance and problems with appropriate prescribing related to antimicrobials rather than antiviral or antifungal agents (or at least were prioritised as such). Additionally the use of antiviral and antifungal agents tended to be limited to metropolitan hospitals rather than regional or remote hospitals and so data collection would not be numerically similar. Since the indicators use a relatively small sample size, if the indicator was expanded to include all three groups of medicines, would the numbers adequately reflect use of each medicine? If resistance and appropriate use of antifungal and antiviral agents is of concern they should perhaps be included as additional separate indicators rather than combining with antibiotics.

3.3 Percentage of medication orders that include error-prone abbreviations

Q: When this indicator was developed the definition of error prone abbreviations included only a subset of the TAG abbreviations table. The list of error-prone abbreviations has since been adopted by the ACSQHC and is updated as required. Should this indicator continue to focus on a select sample of abbreviations or be expanded to the full list?

A: The indicator used in the field tests included all the abbreviations; however feedback was that this was not practical or manageable. On investigating activity by ISMP they too had developed an activity which only measured a subset of their abbreviations list. NSW TAG Indicator reflects the ISMP method in this respect.

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.

3.5 Percentage of medication orders for intermittent therapy that are prescribed safely

The current indicator is specific to measuring only oral methotrexate and fentanyl patches. What was the rationale for including only these two medications? Could this be expanded to other intermittent medications e.g. buprenorphine patches? Why were intermittent IM or IV medications e.g. depot antipsychotics excluded?

A: At the time of development the greatest area of concern was where the deaths were occurring and this was with oral methotrexate and fentanyl. If practice is showing that harm is being caused with other medications perhaps these should be included.

Gills comment: the harm is associated with poor prescribing practice – is this lack of knowledge regarding the use of these two specific medicines or is it related to the activity of prescribing an intermittent medicine?

3.6 Percentage of patients receiving cytotoxic chemotherapy whose treatment is guided by a hospital approved chemotherapy protocol

This indicator has received poor uptake, with many hospitals reporting the use of CI-SCAT or CHARM as a reference source for chemotherapy protocols rather than DTC approved regimens.

The rationale for inclusion of this indicator was a result of reports that chemotherapy use was inappropriate and was being used outside of best practice recommendations. This includes the extended use of oncology agents as treatment for patients who are well into palliative care or for periods of time which extend beyond evidence for benefit.

It may be worth discussing with oncology nurses and consultants what their current concerns are in relation toth e use of oncology treatments.

4.1 Percentage of postoperative patients whose pain intensity is documented using an appropriate validated assessment tool.

We would like to seek permission to provide a link to the NPS APOP toolkits for further information.

A: NSW TAG to write to NPS to obtain formal permission to include tools. Karen does not envisage this to be a problem.

A: The ACI have a program of work regarding the use of pain scores: it may be worth investigating this work.

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 physician

We would like to seek permission to provide a link to the NPS APOP toolkits for further information.

A: NSW TAG to write to NPS to obtain formal permission to include tools. Karen does not envisage this to be a problem.

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

This indicator defines appropriate medications as antiplatelets or anticoagulants, beta-blockers and statins. It does not examine the use of ACE Inhibitors or Angiotensin II receptor antagonists (ARAs). However since the publication of this indicator the NPS coordinated DMACS program (2008-2010) looked at the discharge management of the same patient group and did include ACE inhibitors or ARAs as a guideline recommended medication. Since the indicator and DMACs program use the same referenced guideline should the TAG indicator be updated list 4 rather than 3 appropriate medications?

A: At the time of development the use of ACE-I and ARBS was contentious. This is much less the case now and hence the rationale for inclusion in the DMACS program. It would be timely and is appropriate to include ACE/ARBs in the indicator.

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

Only two hospitals have reported undertaking this indicator with many stating that they had been unable to prioritise this indicator as an area for work. We note that a 2010 NPS review of GP databases has shown significant improvement in this area with 90% of CHF patients receiving ACE inhibitors/ARAs. Is this indicator still relevant for measurement? Have other factors for CHF patients in acute care been

identified, noting that titration to an optimal dose is not possible during the usually short inpatient stay periods.
A: This indicator did not have strong support from test sites as an area of priority when the indicator was developed so Karen is not surprised by the responses to the survey. The use of Beta-blockers was unsteady ground at the time of development and the NICs gap analysis showed that prescribing of ACE as a primary agent was poor and hence the focus on this agent solely.
Gill to follow up further with Geoff.

6.2 Percentage of patients that are reviewed by a clinical pharmacist within one day of admission

There is some discussion as to the terminology for this indicator to reflect the person undertaking the task or the completion of the task of pharmaceutical review. Should it remain as clinical pharmacist review, or be altered to reflect pharmaceutical review?

A: This type of data is collected by a number of people for a variety of reasons. The TAG indicator was a safety issue that early review of patients during admission results in minimisation of errors early in admission. Hence the desire to increase the number patients seen by a clinical pharmacist early in admission.

Centralised data collection for QUM indicators

NPS: The most important component of any system is in the presentation of the results or analysis. It must be in a format that is understandable and of value to the clinician.

Questions from NPS;
- Is there any scope for centralising data that is already being collected?
- Do the commission have any intention for collecting data?
- For what purpose do we want to collect data?

NPS have recently developed a program to pull data from GP systems using clinical coding/screening to undertake a hypertension and heart failure program. This activity required considerable resources in cleaning the data to be able to analyse it. This may have been equal to that required to collate the data by hand. This data could then be used to measure indicators or compliance with prescribing recommendations.

PCHIS is a program used by the AGPN for hosting 'national indicator data collection'. In this program data is manually entered but provides immediate analysis of results and reporting.

NPS are working with the Improvement foundation to host data collection and to house data.
http://improve.org.au/index.php

Demonstration of Analysis and Reporting for The NSW Therapeutic Group

Helen Ganley RN CM Adv Dip QM MQIHC
Bounty Brokers Pty Ltd
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January 2012

Primer on Control Charts

Not understanding variation results in economic and psychological loss by:

- Duplicating the collecting, analysing, reporting, reviewing and discussing 'new' information which is already 'known';
- Blaming people for problems beyond their control;
- Wasting time looking for explanations of a perceived trend when nothing has changed;
- Taking action when it would have been better to do nothing (tampering);
- Not taking action when needed so a molehill grows into a mountain;
- Torturing the data until it confesses.

Figure 1: Common cause variation

A control chart (figure 1) is a run chart with:

- An average/mean (green horizontal centre line);
- Control limits, calculated from the data, at three standard deviations from the mean (the red horizontal lines either side of the average); displayed on the graph as the upper control limit (UCL) & lower control limit (LCL).

When the data falls between the UCL and the LCL ***and*** there are no other unusual patterns (appendix 1), the process is said to be 'stable' or 'in control' as it exhibits only common cause variation. There is no value in comparing high dots to low dots.

When there is sufficient data, e.g. >20 points the summary statistics at right of the graph can be used to predict future performance using the average and expected variation. Prediction will concern the near-future unless there is a fundamental change made to the process.

Figure 1

The graph is a control chart that demonstrates:

- Only common cause variation;
- A green centreline which is the monthly average of 3.5 serious complaints per month;
- Future performance is expected to vary between the control limits of zero and 9.2.

Figure 1

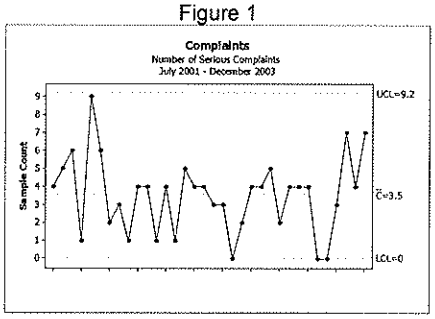


Figure 2

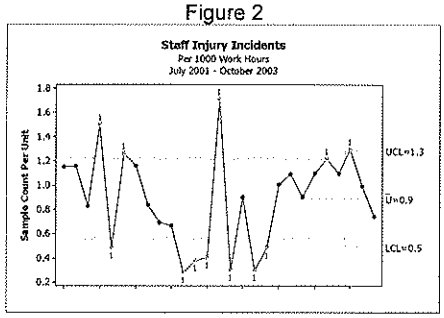


Figure 2

When the data falls outside of the two horizontal control limits and/or exhibits any other non-random variation, the process that produced the data is said to be 'unstable' or 'out of control' as it exhibits common cause and special cause variation. Special cause variation is neither positive nor negative. However, it can quickly identify opportunities for improvement as it can be assignable to specific inputs.

Figure 2 demonstrates common cause variation plus multiple instances of special cause variation. Minitab statistical software displays the number(s) of the 8 special cause tests (appendix 1) breached which signify non-random variation.

Control limits can either be straight or uneven when the denominator changes, e.g. the number of bed-days changes from month to month. Wide control limits, due to small denominators, allows for the uncertainty in the result.

Benefits of Control Charts

Only control charts allow one to:

- Identify the type of variation present:
  - Common cause producing a stable process;
  - Special cause producing an unstable process;
- Respond appropriately to variation;
- See if a change has produced a real (statistically significant) improvement;
- Report performance accurately;
- Predict the near future;
- Be confident, at this point in time, in deciding to do something or do nothing.

Problem Solving and Improvement: There is a different approach required (appendix 2) depending on whether the data displays only common cause variation or common cause variation and special cause variation.

1: Control charts can predict future performance

Figure 1

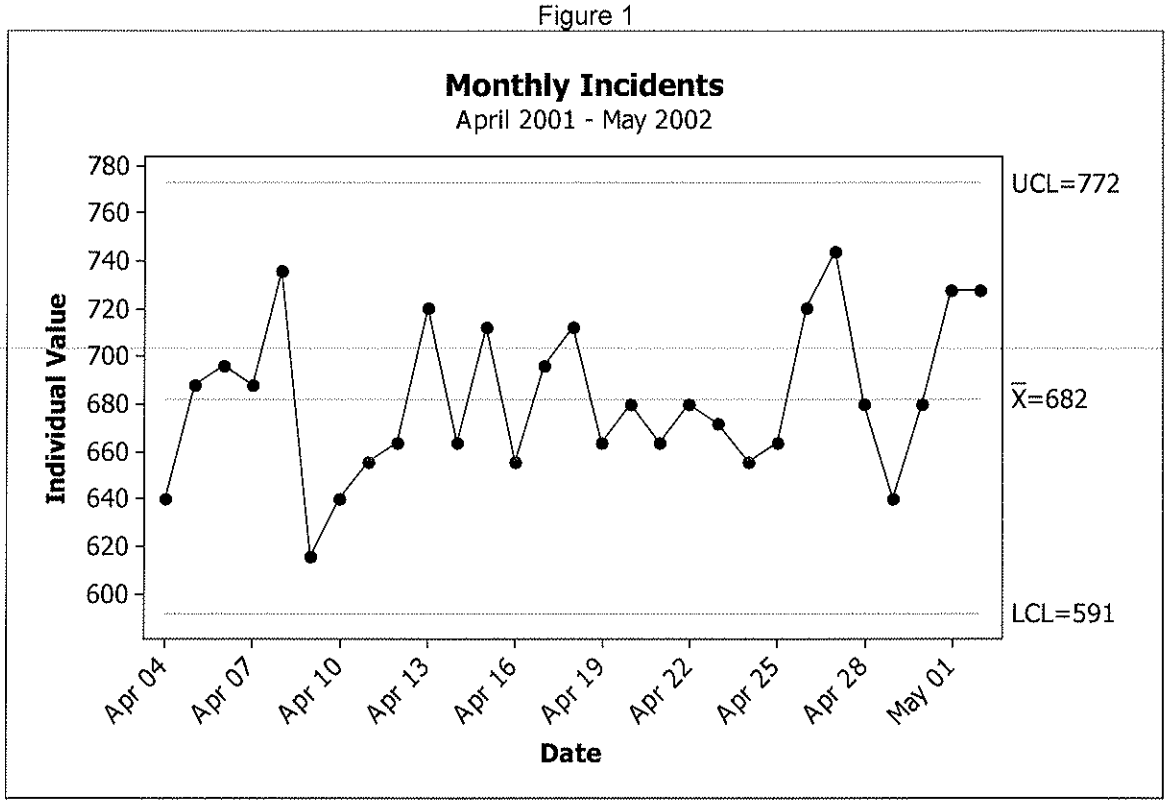


Figure 1 demonstrates only common cause variation. Therefore the summary statistics, at right, can be used for prediction. Performance is currently a monthly average:

- Count of 682 incidents;
- This can be expected to vary between 591 and 772 unless there is a fundamental change (this could be a planned intervention/solution) to the processes that produced these results.

Action: As per appendix 2 for common cause variation

2. Control charts can determine the magnitude of 'expected variation

Figure 2a

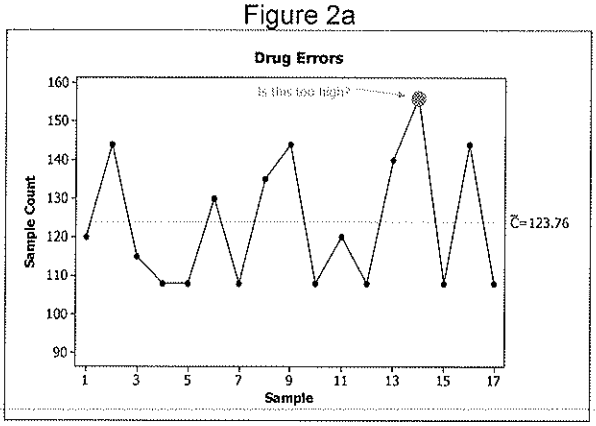
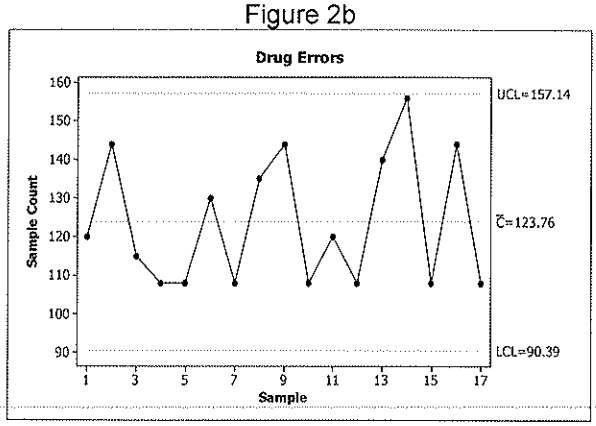


Figure 2b



Without control limits, there is no ability to determine if a dot is too high or too low.

Month 14 could well be 'too high' but a table or run chart cannot identify this.

As month 14 is within the control limits, there is no 'statistical' difference between this month and any other month.

Action: As per appendix 2 for common cause variation

3. Control Charts can easily identify Non-Random Data

Figure 3

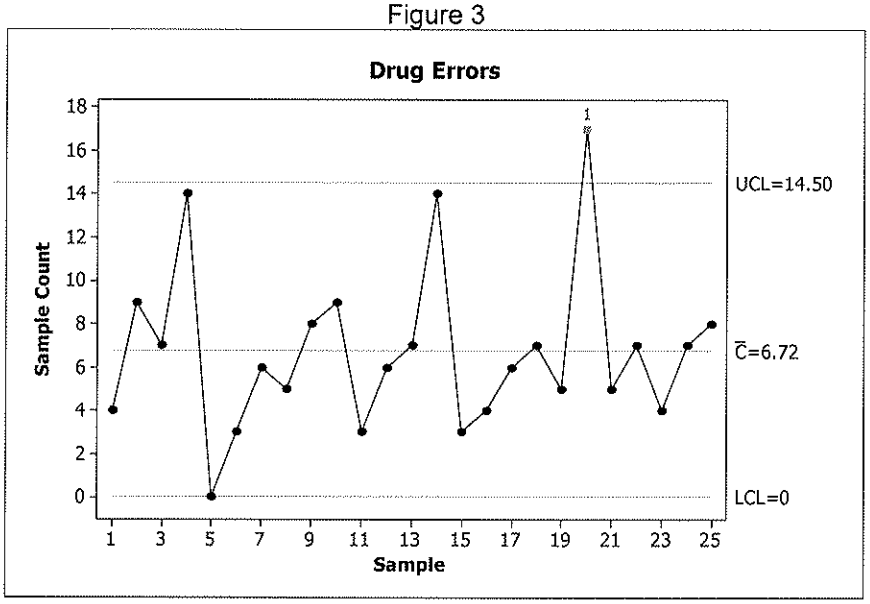


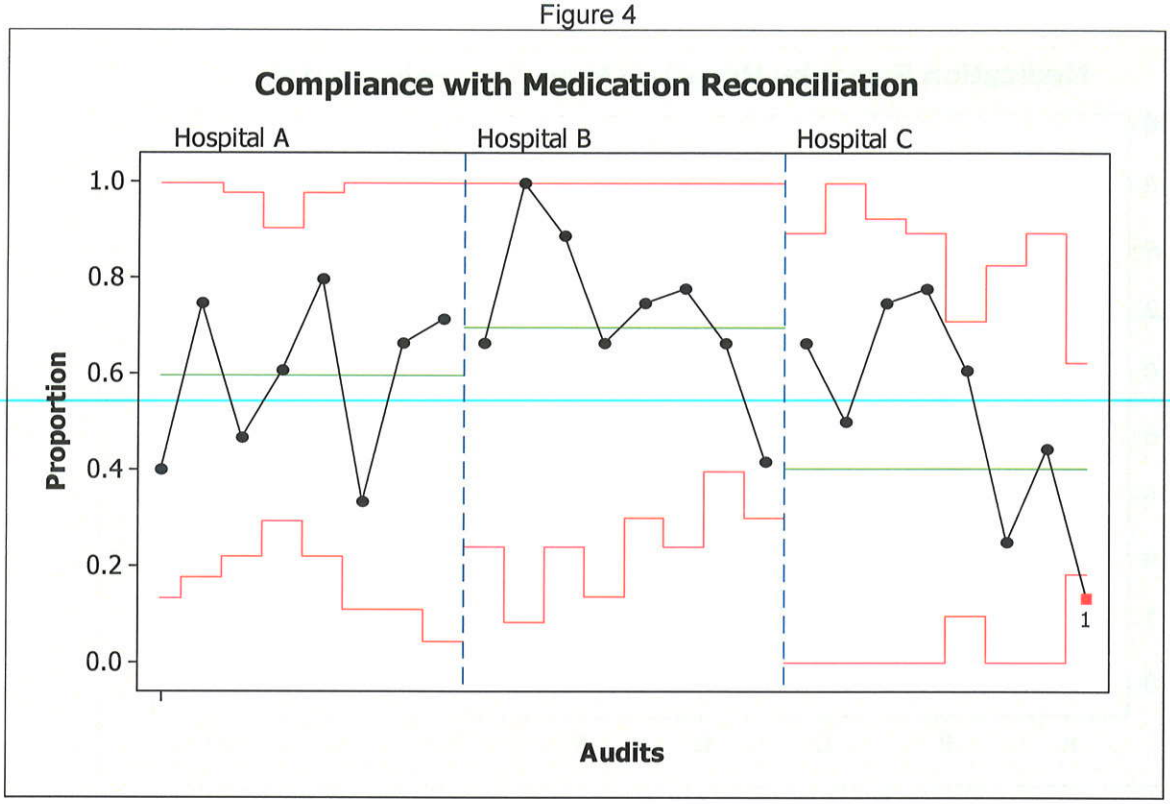
Figure 3 demonstrates special cause variation at month 20 as evidenced by the breach of special cause test number 1 (appendix 1)

Special cause variation is considered to be assignable, i.e. it can direct and focus improvement efforts to specific data.

Action: Review month 20 as per appendix 2.

4. Control charts can display performance from multiple hospitals

Figure 4

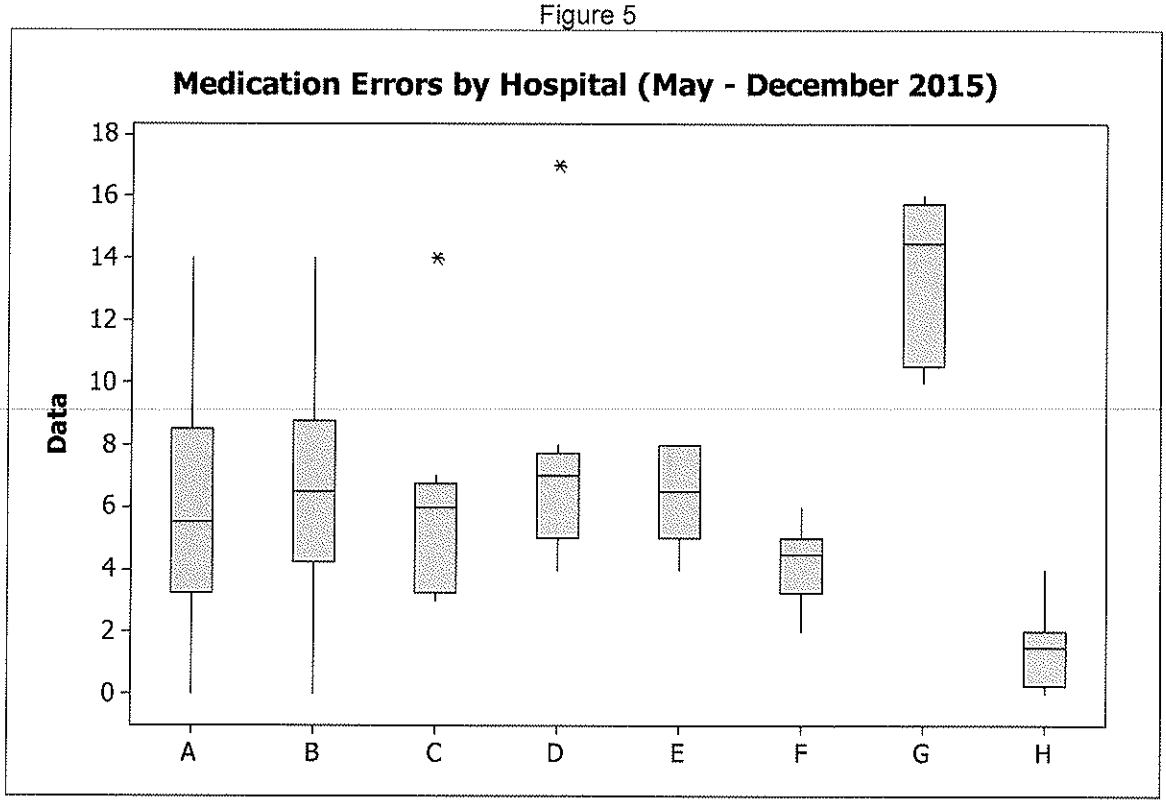


Each hospital is displayed on the one control chart. The green line is the average compliance.

Hospital C is performing lower than the others. In addition, there is a statistically significant decrease in compliance in the last month as evidenced by being outside of the lower control limit (LCL). This should be actioned as per appendix 2.

5. Boxplots display the variation between groups of data

Figure 5

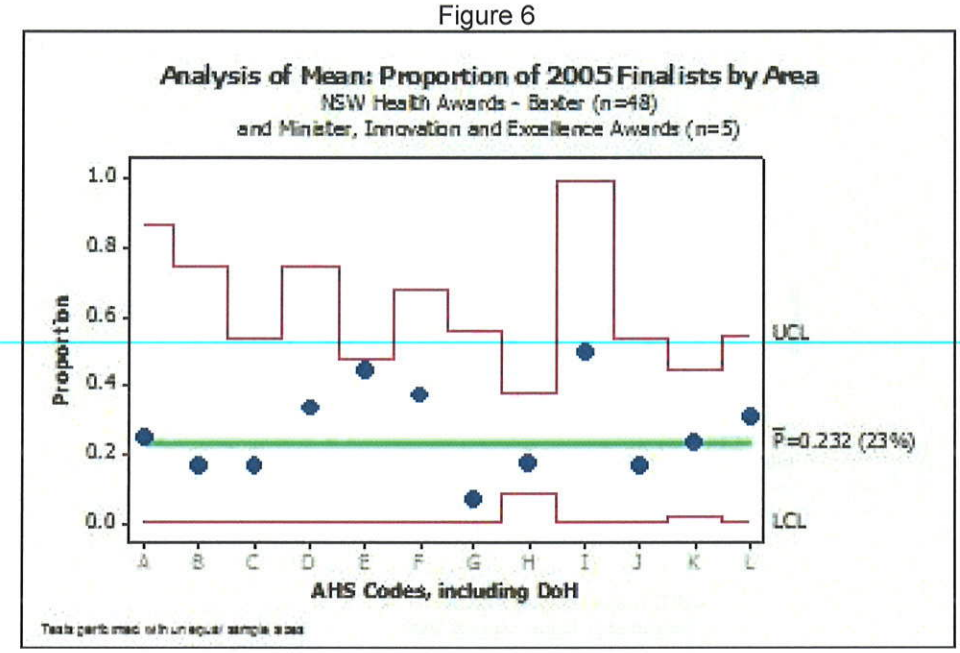


Boxplots are an excellent visual display of the variation. This graph demonstrates:

- A and B results are almost identical;
- C-F have similar performance except that C and D have a month of unexpectedly high variation displayed by the asterisks. This should be investigated to determine cause and prevent this in future performance;
- G is performing much higher than all others. The reason for this should be investigated – it may be due to being a non-comparable hospital, e.g. paediatric hospital compared with adult hospitals;
- Hospital H is performing with low errors and little month to month variation. This is a prime example of a benchmarking opportunity.

6. Analysis of Mean (ANOM) can demonstrate the performance which is different from the system mean

Figure 6



An ANOM chart can be described in 2 ways; by appearance and function. In appearance it resembles a Shewhart control chart. In function it tests whether the sample mean differs from the grand mean of 23%.

Unlike a control chart, the horizontal axis no longer represents time.

'H' has narrow decision limits around its 18% 'success rate' as they have 13 finalist projects selected from 74 nominations for NSW Health awards.

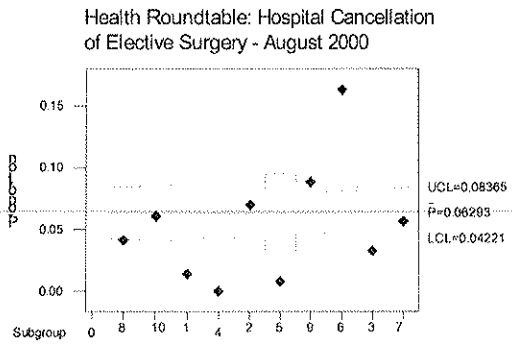
'B' has a 'success' rate of 17% from 6 entries submitted as smaller sample sizes (denominators) give less confidence in the data so the decision limits are wider.
'I' has a 50% success rate - 2 projects

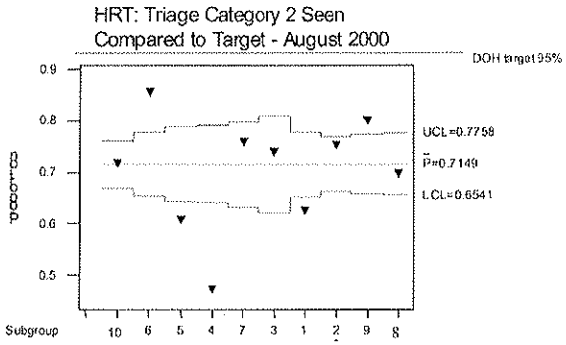
The decision limits show the common cause band around the 'system' average. Any attempt at ranking, e.g. AHS 'I' is numerically "the best performer" with a 50% 'success rate' (1 project is a finalist of 2 projects submitted) is incorrect.

No AHS is outside the common cause band of expected variation, so cannot be considered truly "above" or "below" average.

7. ANOM for Health Roundtable Data

Figure 7





ANOM statistical assumptions
This statistical tool works on the premise that each system is:

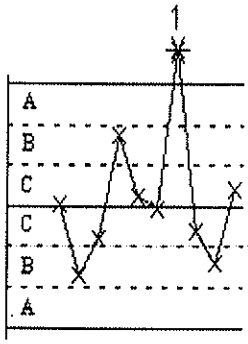
- Exhibiting only common cause variation;
- The 'same' process otherwise comparison is inappropriate.

Results which are 'outside' of the system bounded by the horizontal lines are either above or below average. ANOM can be used to identify statistically high performers for benchmarking with. In addition, ANOM prevents ranking of hospitals.

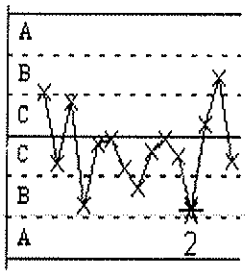
Appendix 1

Eight Tests for Special Causes

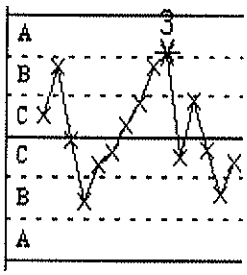
Test 1 One point more than 3σ from center line



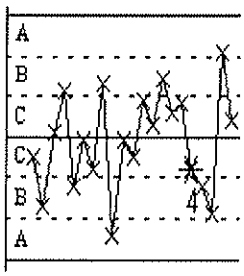
Test 2 Nine points in a row on same side of center line



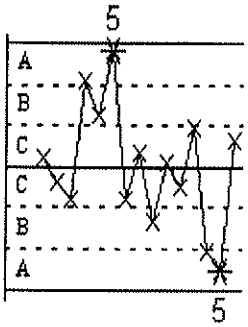
Test 3 Six points in a row, all increasing or all decreasing



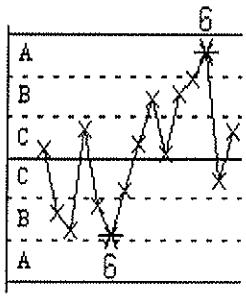
Test 4 Fourteen points in a row, alternating up and down



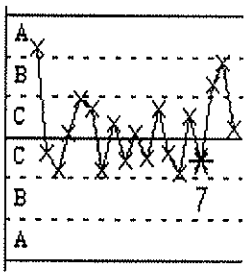
Test 5 Two out of three points more than 2σ from center line (same side)



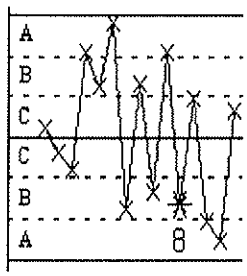
Test 6 Four out of five points more than 1σ from center line (same side)



Test 7 Fifteen points in a row within 1σ of center line (either side)



Test 8 Eight points in a row more than 1σ from center line (either side)



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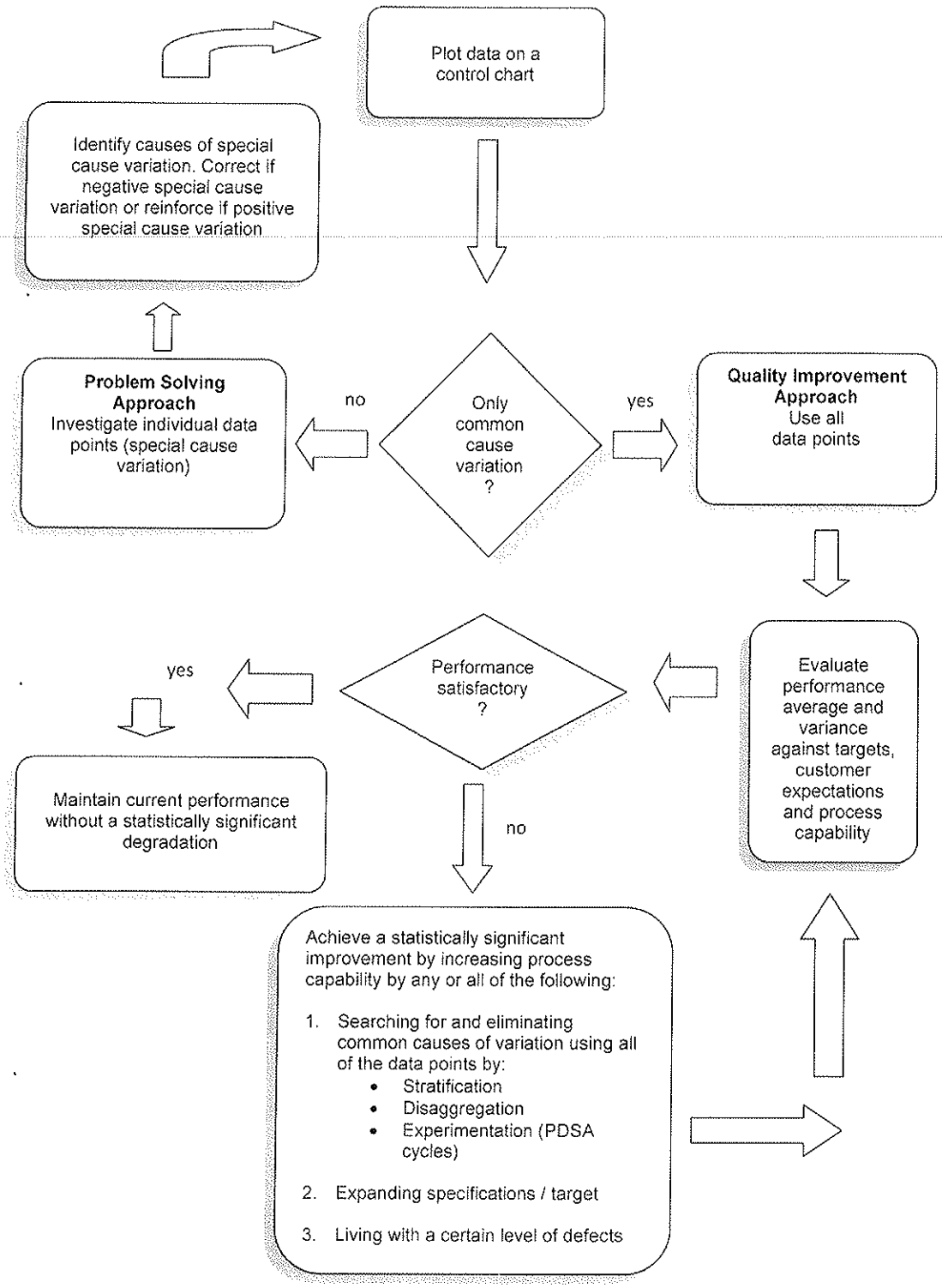
Minitab Inc. (2011). MINITAB Statistical Software. Release 16 for Windows. State College.

Appendix 2

Performance Measurement System



From: "Roberts, Greg (Health)" <Greg.Roberts2@health.sa.gov.au>
To: Penny Thornton <pthornton@stvincents.com.au>
Date: 12/01/2012 12:17:01 pm
Subject: RE: Clinical Indicators - a question?

Hi Penny,

1) not sure of the implications of this in your context, so couldn't comment in any constructive manner, although it seems reasonable enough

2a) seems logical to break it down into 2a and 2b as you've done, given the new guidelines. I presume the age factor is listed there to distinguish neonates and paeds from adults. If so, maybe could be re-worded to ".... correct for weight and renal function with distinction made for neonatal, paediatric and adult dosing." Just for clarity.

2b) this seems reasonable but there may be instances where the prescriber started with empirical therapy, not expecting to use more than 1-2 doses, but cultures received after 1-2 days necessitate prolonged gent. Just seems a bit unfair to list this as a failure against the indicators when in fact it's been driven by changing circumstances. You should still retain the caveat re the correct initial dose that was used in 2a " Percentage of patients prescribed and administered empirical aminoglycoside therapy whose dose is correct for weight and renal function with distinction made for neonatal, paediatric and adult dosing."

I see you have stated "using the AUC methodology" which infers 2-point monitoring should be used. While this is part of the new guidelines, it is a bit naïve on their behalf I think - I don't particularly agree with this, as many hospitals (probably around half) are stuck with one point sampling for a variety of reasons, and that won't change anytme soon. One-point trough levels are fine if you have any sort of clinical insight - basically if you have the skill set to work TCI-works II then you would have sufficient clinical insight to interpret a trough gent conc. There is no acknowledgement of this in the guidelines nor any suggestion about what to do if it is not possible to do 2-point monitoring. They suggest 1-point monitoring is inappropriate, and that is simply not true. Again, it seems harsh to treat 1-point trough sampling as a failure against the indicators in these circumstances. I suppose that begs the question are you're indicators constructed entirely around the antibiotic guidelines?

Sorry, prob more questions than answers in that lot, but I hope this helps

Cheers
Greg

-----Original Message-----
From: Penny Thornton [mailto:pthornton@stvincents.com.au]
Sent: Monday, 9 January 2012 10:14 AM
To: Roberts, Greg (Health)
Subject: Clinical Indicators - a question?

Dear Greg,
I don't know if you remember me - I edit the Medication Incidents pages in the JPPR and I used to be Principal Advisor in Medication Safety to the NSW Dept. of Health. I'm now working part time for NSW Therapeutic Advisory Group on a

project involving revision and updating of the Indicators for Quality Use of Medicines inAustralian Hospitals 2007. It is in this latter context that I've been directed to you for your advice if possible please.

1) We currently have an indicator - 2.2 Percentage of prescriptions for restricted antibiotics that are concordant with Drug and Therapeutics Committee approved criteria. We would like to amend this terminology to use the word antimicrobials instead of antibiotics in line with the latest antimicrobial stewardship agenda. I wonder if you agree with broadening the scope of this indicator in this way?

2) Indicator 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.
Clearly with the revision to Therapeutic Guidelines this indicator is no longer workable. We would like to change it as follows.
2a) Percentage of patients prescribed and administered empirical aminoglycoside therapy (up to 72 hours) whose dose is correct for age, weight and renal function.
2b) Percentage of patients receiving directed aminoglycoside treatment (post 72 hours) whose dosage has been reviewed and adjusted using AUC methodology prior to the next aminoglycoside dose.

So my question is - do you agree with these changes? Do you have any furthe comments or ideas on how these indicators could be better expressed?
with thanks - kind regards,

Penny Thornton
NSW Therapeutic Advisory Group
PThornton@stvincents.com.au
02 8382 3528

Penny Thornton
Project Officer, NSW TAG
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02 8382 3528

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From: David Kong <David.Kong@monash.edu>
To: Penny Thornton <pthornton@stvincents.com.au>
Date: 15/01/2012 4:47:24 pm
Subject: RE: Dear David,

Hi Penny,

Happy New Year. Apology for the delay, my thoughts.

a) Indicator 2.2: Broadening the scope iscan be too broad. Personally, I think all anti-infectives should be monitored and not only antibiotics. So that you have some clarity, can I suggest sub-divide Indicator 2.2 into 3 sub-categories viz.
(i) 2.2a: Appropriate antibiotics
(ii) 2.2b: Appropriate antivirals
(iii) 2.2c: Appropriate antifungals
This way, you have clarity on exactly what to monitor.

b) Indicator 2.3: My problem with the revised version is, 'how do we determine dose is correct for age, weight and renal function'. Currently, I think dosing of aminoglycoside is still a challenge for some, and don't think there is an accurate way. For example, patients with 'unstable renal function' - will be difficult to adjust dose appropriate (granted may be aminoglycoside should not be used). Thus, won't recommend the revised recommendation.

c) Indicator 2b: dose adjustment using AUC methodology: Can I suggest change to "% of patients receiving directed aminoglycoside therapy.....whose dosage has been reviewed and adjusted using an appropriate methodology prior to next dosing of aminoglycosides': - Suggest, 'drop reference to AUC' - this way, so long as someone uses an appropriate methodology, then, should be OK - note that some institutions still adjust dose based on peaks and trough using a standard software/program. The key is that, dosing is monitored and guided by use of 'some proven' methodology. That way, you do not have to 'change the definition' everytime a 'new method' arises to better guide dosing of aminoglycoside.

Hope this helps.

thanks
rgds
david kong

From: Penny Thornton [pthornton@stvincents.com.au]
Sent: Monday, 9 January 2012 10:49 AM
To: David Kong
Subject: Dear David,

Dear David,
I'm writing to you in the context of a current project, I'm now working part time for NSW Therapeutic Advisory Group on revision and updating of the Indicators for
Quality Use of Medicines inAustralian Hospitals 2007. It has been suggested taht you may have some advise for us in regard to the following.

1) We currently have an indicator - 2.2 Percentage of prescriptions for

restricted antibiotics that are concordant with Drug and Therapeutics Committee approved criteria. We would like to amend this terminology to use the word antimicrobials instead of antibiotics in line with the latest antimicrobial stewardship agenda. I wonder if you agree with broadening the scope of this indicator in this way?

2) Indicator 2.3 Percentage of patients with a toxic or sub-therapeutic aminoglycoside concentration whose dosage has been adjusted or reviewed prior to
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Clearly with the latest revision to Therapeutic Guidelines this indicator is no longer workable. We would like to change it as follows.
2a) Percentage of patients prescribed and administered empirical aminoglycoside therapy (up to 72 hours) whose dose is correct for age, weight and renal function.
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the next aminoglycoside dose.

So my question is - do you agree with these changes? Do you have any furthe comments or ideas on how these indicators could be better expressed?
with thanks - kind regards,
Penny

Penny Thornton
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From: Paul Seale <paul.seale@sydney.edu.au>
To: Penny Thornton <pthornton@stvincents.com.au>
Date: 16/01/2012 10:53:13 am
Subject: Re: Dear Prof Seale,

OK Penny,

I've now been able to consider this. 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.

If the patient is regarded as requiring admission, the A & E staff then contact respiratory medicine.

It would be advisable to get the opinion of the relevant special interest Group of TSANZ, so I have copied this email to the Executive Officer, Rita Perkons, so that she can forward it for their advice.

****
*
J Paul Seale MBBS PhD FRACP Professor of Clinical Pharmacology
Sydney Medical School,
University of Sydney NSW 2006 Australia

Deputy Director, Woolcock Institute of Medical Research
tel: +612 9351 3819 Fax : +612 9351 4717 email :
jpseale@med.usyd.edu.au
****
*

On 9/01/12 11:38 AM, "Penny Thornton" <pthornton@stvincents.com.au> wrote:

Dear Prof Seale,
I'm now working at NSW TAG on a project to update the Indicators for Quality Use of Medicines in Australian Hospitals.
You are probably aware that one of the indicators is:

2.4 Percentage of adult patients with community acquired pneumonia that are assessed using an appropriate validated objective measure of pneumonia severity.
This indicator addresses effectiveness of processes that promote judicious selection of treatment choices for patients with community acquired pneumonia (CAP).

The earlier indicator stated: There are a number of objective measures of pneumonia severity designed to assist in guiding pneumonia management. Severity-of-illness scores, such as the CURB-65 criteria (6), or prognostic models, such as the Pneumonia Severity Index (PSI) (5), can be used to identify patients with CAP who may be candidates for outpatient treatment as well as guide selection of antibiotic therapy. In Australia, the PSI has been most widely used and is recommended by Therapeutic

Guidelines: Antibiotic. (4)

We have now amended the following section according to what we believe is the latest practice and would like your advice on its appropriateness. Also perhaps you might direct me to someone from the Thoracic Society of ANZ - special interest group on respiratory infectious diseases, who may be able to give an opinion from this body without going to a full consultation.

Background and evidence: (amended)
There are a number of scoring systems which have been developed to stratify patients with CAP according to their disease severity. However, severity scoring systems should only ever be used as a guide and considered in the clinical and social context of the patient.
Severity scoring systems (eg CORB (1), SMART-COP) (2) (3) are based on predictors of requirement for intensive respiratory or vasopressor support, in addition to mortality. These tools draw attention to the important clinical features that predict clinical deterioration, and so are now preferred for assessing pneumonia severity. SMART-COP (2) (3) includes more variables, which generally increases its sensitivity, but CORB (1) is presented as an alternative because it is simple and can be used in the absence of investigation results. (4)
Severity of illness scores such as CURB-65 criteria (5) were developed to identify patients with severe disease. The prognostic model - the Pneumonia Severity Index (PSI/PORT) (Ref 6) is designed to identify low-risk patients who may be suitable for outpatient care. Both are based on predictors of mortaliy. All four tools above are recommended by Therapeutic Guidelines: Antibiotic, 2011 (4)

Key definitions:

[3]An appropriate validated objective measure of pneumonia severity[2] refers to use of the CORB((1) SMART-COP (2) (3) CURB-65 (6)5 or PSI (5) tools or other validated objective measures of severity. The tool(s) used for severity assessment may be determined at a hospital level, but should be endorsed by the Drug and Therapeutics Committee or other appropriate committee. Pneumonia severity should be objectively assessed and explicitly documented prior to administration of antibiotics.

References:

1. Identifying severe community-acquired pneumonia in the emergency department: a simple clinical prediction tool . Buising KL, Thursky KA, Black JF, MacGregor L, Street AC, Kennedy MP, et al. 2007, Emerg Med Australasia, Vol. 19(5), pp. 418-26.
2. SMART-COP: a tool for predicting the need for intensive respiratory or vasopressor support in community-acquired pneumonia. Charles PG, Wolfe R, Whitby M, Fine MJ, Fuller AJ, Stirling R, et al. 2008, Clin Infect Dis , Vol. 47(3), pp. 375-84.
3. Pneumonia risk stratification in tropical Australia: does the SMART-COP score apply? . Davis JS, Cross GB, Charles PGP, Currie BJ, Anstey NM, Cheng AC. 2010, Med J Aust , Vol. 192(3), pp. 133-6.
4. Therapeutic Guidelines Limited. eTG Antibiotic/Respiratory [Internet] Accessed 2011 Oct 26. Melbourne : s.n., 2010.

5. A prediction rule to identify low-risk patients with community-acquired pneumonia. . Fine MJ, Auble TE, Yealy DM, et al. 336, 1997, New England Journal of Medicine, pp. 243-50.
6. Defining community acquired pneumonia severity on presentation to hospital: an international derivation and validation study. Lim WS, van der Eerden MM, Laing R, et al. 58, 2003, Thorax, pp. 377-82.
7. Institute for Safe Medication Practices. Medication Safety Self Assessment for Autralian Hospitals. s.l. : Adapted for Australian use by the NSW Therapeutic Advisory Group and the Clinical Excellence Commission, 2007.
8. Infectious Diseases Society of America/American Thoracic Society consensus guidelines on the management of community-acquired pneumonia in adults. . Mandell LA, Wunderink RG, Anzueto A, et al. 44, 2007, Clinical Infectious Diseases, pp. S27-72.
9. Centers for Medicare & Medicaid Services (CMS) and The Joint Commission. Specifications Manual for National Hospital Quality Measures (Specifications Manual). 2007.

Could you give me your ideas as to the suitability of this amendment and also any referral to the Thoracic Society of ANZ -you may think appropriate?
with thanks,

Penny Thornton,
Project officer, NSW TAG
02 8382 3528
pthornton@stvincents.com.au

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CC: Rita Perkons <rita.perkons@thoracic.org.au>

From: Sarah Hilmer <shilmer@med.usyd.edu.au>
To: Paul Seale <paul.seale@sydney.edu.au>
Date: 2/17/2012 9:13 am
Subject: Re: Enoxaparin indicator (1.3)

Dear Penny,

I agree with Paul's point.

A difficulty may still arise in audit where mg/kg therapeutic dose for 40kg patients with impaired renal function is 40mg daily, and indication is not written on chart. However, I can't think of a way around this.

Best wishes,

Sarah

Paul Seale wrote:
> Yes Penny.
>
> The majority of the enoxaparin is given for DVT prophylaxis, and there
> is a standard dose of 40 mg (high risk patients) or 20 mg (low risk
> patients), so patient weight is not a consideration.
>
> However, in this patient group, the indication should be recorded.
>
> Hence, if the indication is recorded as DVT prophylaxis and there is
> no weight recorded, then a dose of 20 or 40 mg *cannot be assumed to
> be inappropriate*
> *
> *
>
> For the indications where mg/Kg doses are required, the patient's
> weight needs to be on the chart, so when a mg/kg dose is charted, if
> */either the indication for therapy or the patient's weight is not
> recorded on the medication chart, the dose is assumed to be
> inappropriate"/*
>
> Regards,
>
> PAUL S
> **********
> J Paul Seale MBBS PhD FRACP Professor of Clinical Pharmacology
> Sydney Medical School,
> University of Sydney NSW 2006 Australia
>
> Deputy Director, Woolcock Institute of Medical Research
> tel: +612 9351 3819 Fax : +612 9351 4717 email :
> jpseale@med.usyd.edu.au
> **********
>
> From: Penny Thornton <Penny.Thornton@quams.com.au
> <mailto:Penny.Thornton@quams.com.au>>
> Organization: Quality Assurance in Medication Safety

> Reply-To: <Penny.Thornton@quams.com.au
> <mailto:Penny.Thornton@quams.com.au>>
> Date: Thu, 16 Feb 2012 12:45:54 +1100
> To: Sarah Hilmer <shilmer@med.usyd.edu.au
> <mailto:shilmer@med.usyd.edu.au>>, <Paul.Seale@sydney.edu.au
> <mailto:Paul.Seale@sydney.edu.au>>
> Cc: 'NSW TAG' <nswtag@stvincents.com.au <mailto:nswtag@stvincents.com.au>>
> Subject: Enoxaparin indicator (1.3)
>
> Sarah, Paul,
>
> Resulting from our meeting at NSW TAG on Tuesday this week, to discuss
> remaining questions from the QUM indicators, I was asked to request
> your input on this indicator.
>
> */1.3 The percentage of patients prescribed enoxaparin whose dosing
> schedule is appropriate./*
>
> In the recommended methodology for data collection the 2007 edition
> states
>
> */"Review of medication charts: 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"/*
>
> The group discussed this at length but the overall view was that the
> practice change we are attempting to drive is that of complete and
> accurate prescribing, so it should remain unchanged. The feeling was
> that the renal function dose adjustment was not to be taken into
> account, as stated, as this is not what is being measured but correct
> prescribing for prophylaxis vs treatment.
>
>
>
> My question therefore is – do you agree or would you see this
> indicator modified in some way?
>
>
>
> * /Penny Thornton/*
>
> **
>
> /trading as// Quality Assurance in Medication Safety /
>
> /mailto: Penny.Thornton@QuAMS.com.au
> <mailto:%20Penny.Thornton@Quams.com.au>/
>
> /http://www.quams.com.au <http://www.quams.com.au/>/
>
> PO Box 831, Kings Langley, NSW 2147, Australia
>
> Tel: +61 2 9671 7185 Mob: 0419 263 062
>
>
>

From: Madlen Gazarian <m.gazarian@unsw.edu.au>
To: NSW TAG <nswtag@stvincents.com.au>, "Penny.Thornton@quams.com.au" <Penny.Thornton@quams.com.au>
Date: 2/21/2012 1:57 pm
Subject: QUM indicators r/v: f/u from 14 Feb mtg

Dear Sasha and Penny

As promised, here are some f/u points re some of my comments at last week's meeting re QUM indicators review. Am limiting commentary primarily to the "paediatric specific" indicator (3.4) and to those with high paediatric relevance, or known to be a currently controversial area, viz the gentamicin indicators. As we discussed, it would be important to ensure there is adult clinical pharmacology input to the core advisory gp (i.e. in addition to the individual experts you have already approached for individual indicators) to help with the final decisions re some of the changed or new indicators proposed.

My specific comments as below:

1. Indicator 3.4: I've made some suggestions to improve or refine wording as per highlights and "sticky notes" in attached pdf. Happy to discuss if needed.

Re References, suggest replacing:

a) current ref 2 with a more recent one summarising extent and nature of medication errors in paediatric population. Am pasting citation below as couldn't work out how to do it as tracked changes in pdf.

Miller MR, Robinson KA, Lubomski LH, Rinke ML, Pronovost PJ. Medication errors in paediatric care: a systematic review of epidemiology and an evaluation of evidence supporting reduction strategy recommendations. Qual Saf Health Care. 2007; 16: 116-126.

b) Current ref 1 OK, but suggest replace with more complete citation as below:
Stucky ER, for Committee on Drugs (2001-2002) and Committee on Hospital Care (2002-2003), American Academy of Pediatrics. Prevention of Medication Errors in the Pediatric Inpatient Setting (Policy Statement). Pediatrics. 2003; 112: 431-36.

2. Gentamicin indicators: As discussed last week, support the proposed 2.3 b and c indicators but suggest need modifications to current wording. Some key points you could incorporate (with different wording) include:

* Acknowledge different TDM recommendations for "traditional" (eg tds) vs "once daily" (or extended interval) dosing regimens.

* While trough levels might be ok for monitoring "traditional" dosing regimens, they are not OK for monitoring once daily regimens. That only leaves AUC, dose individualisation or graphical methods as possible options. AUC or dose individualisation methods are optimal and should be supported, as per TG and the published literature.

* However, worth noting that AUC methods with appropriate validation in paediatric population are scant, but should be sought for use where monitoring will be for paediatric patients (Carl Kirkpatrick from Monash I think was doing some research on this recently, so worth checking with him re latest update on this. Johnnie Ray from St Vincents may also wish to comment).

* While AUC methods have resource implications, if such TDM is being used only in patients

receiving directed therapy, it should be more feasible in routine practice. That's why I think it's important to incorporate into 2.3 b that pts receiving short term empiric therapy (and who have no other risk factors for toxicity) do not need TDM (and somehow get a measure of this as part of the indicator). Changing that part of practice should save a huge amount of time, money and waste that is currently going on in our system.

I attach FYI our recently published paper evaluating safety of once daily gentamicin in paeds and utility of a graphical TDM method. It highlights some of the areas of controversy in paeds, including re need for more research in neonatal population to enable confident recommendations re optimal dosing and monitoring approach.

Also, as mentioned last week, at a national level paediatric clinician gps (including via CHA and the paed ID gps) have identified a number of areas of controversy re gentamicin dosing/monitoring across the paediatric age range, which the revised TG recs do not necessarily address optimally. Via the CHA gp (which I am part of) we had resolved to develop paed specific national guidance, but this has not got very far yet, due largely to resource constraints. We had also flagged it as a topic for the TAG editorial c'tee to potentially consider addressing, just prior to Joc's departure.

3. Additional candidate indicators: See list I gave Sasha a copy of yesterday ...as agreed, would be good to include a reference to these in the report to ACSQHC. As you'll note a number of ones in that subset are highly relevant (and v important) to paeds QUM.

A couple of final points:

a) as suggested last week, it might be good to run next version of 3.4 and 2.3b and c past Sean Turner quickly as well (he provided substantial input to r/v of original set, wearing several hats, including as Chair of CHA Med Safety SIG) . I'm happy to facilitate that as a continuation of my original role as CHA liaison for PIMS project, so please let me know. I appreciate that there's not much time left before next week's deadline, so this may not be feasible before report goes to ACSQHC, but could be flagged as an area of work needed perhaps?

b) as mentioned to Sasha yesterday, any completely "new" indicators (eg 2.3b) would optimally need to undergo at least a minimal level of broader r/v and field testing to ensure consistency with the original indicator development process. I particular, I think the gentamicinn ones could be flagged as needing such extra work to optimise their value.

c) as we agreed, would be good to highlight in report to ACSQHC the primary purpose of these indicators as tools to drive improvement, and not for use as benchmarking or accountability tools. Our MJA editorial from 2010 refers to these points and provides a nice overall summary re background, so would be good to include as a reference (or addendum) perhaps? See http://www.mja.com.au/public/issues/192_04_150210/low11033_fm.html

I hope this all makes sense and is helpful ...sorry about the length!! I'll be "off the airwaves" for most of tomorrow, but happy to discuss further later in week as needed...

Cheers
Madlen

Madlen Gazarian
MBBS, MSc(ClinEpi), FRACP
Consultant in Paediatric Clinical Pharmacology &Therapeutics,

From: Yashwant Sinha (SCHN) [mailto:yashwant.sinha@health.nsw.gov.au]
Sent: Wednesday, 22 February 2012 2:16 PM
To: 'Penny.Thornton@quams.com.au'
Subject: RE: Advice please?

Hi Penny,

Thank you for your note..I don't think I have any more info apart from what was summarised from the interviews I conducted. I included the following summary from earlier this month:

Conclusions from our study:

Most hospitals described the quality of submission by applicants as variable, with further information requested from the applicant where the submission was inadequate.

A formal evaluation of the quality or level of evidence to support these applications was not undertaken for this study.

Looking back at the data collection for each hospital

1. Extra info would be requested from applicants if required with pharmacy supplementing applications with cost data as needed

2. If info was inadequate, applications were rejected and required resubmission

3. Occasionally, applicants are invited to present their application at a DTC meeting (quote from 1 hospital)

4. Only one of eight hospitals described the information provided by applicants as generally adequate

If this is not sufficient to help with the update, I am very happy to talk over the phone. I am free today until about 4pm, otherwise tomorrow from 10:30am to mid afternoon? Mobile 0403 971 966

Kind regards,

Yashwant

From: Penny Thornton [mailto:Penny.Thornton@quams.com.au]
Sent: Wednesday, February 22, 2012 12:36
To: Yashwant Sinha (SCHN)
Cc: 'NSW TAG'
Subject: Advice please?

Yashwant,

You may not remember me - I was Pharmacy manager at CHW prior to Peter Barclay and we had a couple of discussions prior to your writing your paper - Drug approval processes in Australian paediatric hospitals.

I'm now working at the NSW TAG to update the 2007 QUM indicators publication under their contract for use of these indicators by the Australian Commission for Safety and Quality in Healthcare.

My question relates to indicator 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.

I note you made quite a few observations relevant to this indicator and I intend quoting your paper but we would like to ask if you had any further insight into the committees' access to "adequate information"?

Any insights you can provide would be really useful - my deadline is next week - Feb 27.

With much thanks,

pdt

Penny Thornton

trading as Quality Assurance in Medication Safety

<mailto:%20Penny.Thornton@Quams.com.au> mailto:Penny.Thornton@QuAMS.com.au

<http://www.quams.com.au/> http://www.quams.com.au

28/2/12

Dear Penny

The Chair of the ACEM Standards Committee has reviewed the draft indicator 2.5 Clinical indicator for patients presenting with community acquired pneumonia and agrees that the definition of "Guideline concordant antibiotic therapy" reflects the general view of Emergency Medicine Specialists.

The College would welcome the opportunity to promote the updated Indicators for Quality Use of Medicines in Australian Hospitals' to its members via the ACEM website. To this end, we would appreciate being informed on the outcomes of the review and the subsequent publication of the updated Clinical Indicators.

Kind regards

Andrew

Dr Andrew Gosbell

Director of Policy and Research

Australasian College for Emergency Medicine (ACEM)

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-----Original Message-----
From: Penny Thornton [mailto:pthornton@stvincents.com.au]
Sent: Monday, 20 February 2012 9:38 AM
To: Andrew Gosbell
Cc: NSW TAG
Subject: RE: Message for CEO Dr. Alana Killen - Confirmation of clincial indicator - advice?

Dear Andrew,

My apologies for the circuitous route this message took to reach you. It may have suffered in the process. I hope I can clarify.

I am in the process of updating Indicators for Quality Use of Medicines in Australian Hospitals 2007 for NSW TAG (for whom I'm working at the moment). The indicators will ultimately be used to provide material for the Australian Commission on Safety and Quality in Healthcare who have commissioned this update.

My question is simple, regarding indicator 2.5 - Percentage of patients presenting with community acquired pneumonia that are prescribed guideline concordant antibiotic therapy:

Are you happy with our definition - "Guideline concordant antibiotic therapy" refers to concordance with the latest version of Therapeutic Guidelines: Antibiotic (ref) In some hospitals, local infection and resistance patterns may justify the use of guidelines that differ from Therapeutic Guidelines: Antibiotic. In this case, locally produced guidelines must be evidence-based, systematically developed, and approved for local use by the hospital's Drug and Therapeutics Committee in order to be a suitable alternative to Therapeutic Guidelines: Antibiotic. ?

A full copy of the 2007 indicators can be seen at ...
http://www.cec.health.nsw.gov.au/programs/medication-safety

As our time for completion of the review is drawing to a close at the end of Feb, rather than a full discussion with ACEM, all we need is your personal opinion and perhaps your view if you believe that would reflect the general view of your professional group.

With thanks for your assistance.

Penny Thornton

Penny Thornton
Project Officer, NSW TAG
pthornton@stvincents.com.au<
02 8382 3528
>>> Andrew Gosbell <Andrew.Gosbell@acem.org.au<mailto:Andrew.Gosbell@acem.org.au>>
16/02/2012 4:24:52 pm

>>> >>>

Hi Penny

I have discussed the clinical indicator extract you provided, on antibiotic selection in patient with CAP (as per the text extract in your original email - attached), with the Chair of the ACEM Standards Committee. While we accept that therapeutic guidelines are a standard, we are not clear on how this indicator has been presented to us and what feedback is being sought from the College. Could you provide further clarification and context for this indicator?

Please feel free to phone me (03 9320 0412) to discuss, if this would assist

Kind regards

Andrew

Dr Andrew Gosbell

Director of Policy and Research

Australasian College for Emergency Medicine (ACEM)

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-----Original Message-----

From: Penny Thornton [mailto:pthornton@stvincents.com.au]<mailto:[mailto:pthornton@stvincents.com.au]>

Sent: Monday, 13 February 2012 9:03 AM

To: Andrew Gosbell

Subject: RE: Message for CEO Dr. Alana Killen - Confirmation of clincial indicator - advice?

Dear Andrew,

Apologies for omitting a timeline. My project completes at the end of February

2012 so if a brief response could be received in the next couple of weeks it would be appreciated.

with thanks,

Penny

Penny Thornton
Project Officer, NSW TAG
pthornton@stvincents.com.au<mailto:pthornton@stvincents.com.au>
02 8382 3528

>>> Andrew Gosbell <Andrew.Gosbell@acem.org.au<mailto:Andrew.Gosbell@acem.org.au>>
8/02/2012 9:12:24 am >>>

Hi Penny

The request from NSW TAG for input on the clinical indicator for concordant antibiotic therapy for community acquired pneumonia has been referred to ACEM's quality committee for consideration.

Could you let me know your timeline for a response from the College as this wasn't specified in your original email to the ACEM CEO Thanks Andrew

-----Original Message-----

From: Alana Killen

Sent: Monday, 6 February 2012 4:13 PM

To: Andrew Gosbell

Subject: FW: Message for CEO Dr. Alana Killen - Confirmation of clincial indicator - advice?

Hi Andrew,

Can you please follow up on this with Penny. I forwarded this to you on the 9th January and wondered if you could send her an email letting her know. I have tried emailing several times, but my emails keep being returned. It may require an 'out-of-sessions' email to the members of the Quality subcommittee. You may like to send out a query and then forward emails on as received rather than trying to receive a consensus on something such as this.

Cheers

Alana

Alana Killen

Chief Executive Officer

Australasian College for Emergency Medicine (ACEM)

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-----Original Message-----

From: Penny Thornton [mailto:pthornton@stvincents.com.au]<mailto:[mailto:pthornton@stvincents.com.au]>

Sent: Monday, 6 February 2012 3:50 PM

To: Alana Killen

Subject: Fwd: Message for CEO Dr. Alana Killen - Confirmation of clincial indicator - advice?

Dear Dr. Killen,

I'm just checking if you received the email attached - could you advise?

with thanks,

Penny

Penny Thornton
Project Officer, NSW TAG
pthornton@stvincents.com.au<

From: Clare Delaney <CDelaney@nps.org.au>
To: David Maxwell <nswtag@stvincents.com.au>
Date: 3/5/2012 11:46 am
Subject: FW: Indicator for heart failure

Hi Sasha,

The information regarding optimal adherence rate to guideline recommendations with regard to ACE inhibitors/angiotensin II-receptor antagonists came from an audit of 673 GPs (2008). The report contained aggregated data for 5512 adult patients with systolic chronic heart failure (CHF).

As outlined in the NPS News 75 - Improving treatment of systolic heart failure, the audit concluded that 90% of patients (4877/5397) were using an ACE inhibitor or an angiotensin II-receptor antagonist unless contraindicated. The major reasons for not using an ACE inhibitor included adverse effect (63%), contraindication (6%), not previously considered (6%) and unknown (17%). Interestingly 71% patients were prescribed a daily dose of ACE inhibitor within the recommended target daily range for systolic CHF.

The audit also showed that the use of a heart-failure-specific beta blocker unless contraindicated was 64% (3257/5076).
NPS did not analyse the major reasons for not using a heart-failure-specific beta blocker hence I'm unsure I am able to answer your request for info regarding contraindications/intolerance to heart-failure-specific beta blockers within the Australian population other than the pure figure/rate above.

With regard to the adherence to CHF guidelines with the use of a heart-failure-specific beta blocker (carvedilol, bisoprolol, controlled release metoprolol (NB: nebivolol was not indicated at that time)) unless contraindicated, in patients already using an ACE inhibitor but who remain symptomatic (NYHA II - IV), the NPS audit showed this occurred in 68% patients (1922/2824). Again, NPS did not analyse the major reasons for non adherence to guidelines (not using a heart-failure-specific beta blocker).

The audit analysis did provide information regarding GP reasons as to why patients did not achieve the recommended target dose of heart-failure-specific beta blockers. Only 43% of patients achieved the recommended target daily dose of heart-failure-specific beta blocker, however 76% of patients did have their current dose of heart-failure-specific beta blocker increased since initiation. The major reasons for not achieving the recommended target daily dose of a heart-failure-specific beta blocker included adverse effect (33%), not warranted (current dose works well) (26%), recently initiated (< 2 weeks ago) (6%), overlooked or not confident (3%), unknown (26%) and other (9%).

The NPS News 75 did not reveal the audit results specific to heart-failure-specific beta blockers. I'm not entirely sure why except that based on the participation numbers, I'm uncertain that any conclusions would be representative of the entire Australian systolic HF population (I'm not sure how many people in Australia even have systolic HF (you may know)) and also that there may be questions as to whether the GPs that participated in the audit could in fact be a bias sample (? whether more inclined to have better prescribing habits or were lead by the audit questions?). I think for the above reasons NPS does not ever reference our audits. Another point worth mentioning is that in the final NPS audit report, there was no analysis of patients taking heart-failure-specific beta blocker and angiotensin II-receptor antagonists (I have no idea why this was not done). Therefore, the above results may in fact be better if this cohort of patients were included...(I'm not sure if this is relevant?!? You may be able to provide more light on this?).

However the above results for heart-failure-specific beta blockers are better than that seen overseas (although the data below is from 2001 so it may have improved since then). The following information is taken from NPS Background Materials for the Heart Failure Visiting topic in 2008.

"In a survey of 15 European countries many primary care physicians were aware of the benefits of ACE inhibitors and beta-blockers in heart failure, but only 34% of their heart failure patients were prescribed beta-blockers and even fewer (20%) received beta-blockers and ACE inhibitors in combination.(1) Cardiologists initiated beta-blocker treatment in over 50% of cases; less than a fifth of patients had treatment initiated in primary care. Overall, doses prescribed were about 50% of target doses suggested in European guidelines.

Qualitative research of British and Australian general practitioners identified the following reasons as to why GPs do not prescribe heart-failure-specific beta blockers.(2,3):

* concerns about possible adverse effects such as renal impairment, bradycardia and cardiac decompensation;
* a lack of confidence in initiating beta-blockers outside a hospital setting;
* the fact that new recommendations regarding beta-blockers directly contradicted their earlier training, which taught that beta-blockers were contra- indicated in heart failure;
* general concerns about polypharmacy and the risks of adverse effects in elderly patients with co-morbidities such as asthma and diabetes.

Many of these concerns are well-founded and some guidelines recommend that initiation and up-titration of beta-blockers be performed under specialist supervision.(4,5) Careful dose titration is essential and there is a risk of complications such as hypotension, bradycardia or worsening heart failure. Recent analyses of titration periods in the MERIT-HF and COPERNICUS studies have tried to quantify this risk.(6,7)

In MERIT-HF (6), conducted in patients with mostly mild-moderate heart failure, low heart rate was the main factor that limited titration of metoprolol (9.1% not having completed titration at week 8 versus 2.4% for placebo). Low blood pressure did not delay titration any more than with placebo and diuretic dosing (a marker of fluid retention) did not change.

COPERNICUS was conducted in patients with severe heart failure, who would be expected be more vulnerable to adverse effects. Benefits of carvedilol in reducing mortality and clinical events were apparent even during the titration period.(7) Worsening heart failure was the only serious adverse effect that occurred at a frequency > 2%, but was reported at a similar frequency in the carvedilol and placebo groups (5.1% and 6.4%, respectively). Patients in the carvedilol group experienced more dizziness, hypotension, oedema and bradycardia; very occasionally these necessitated drug withdrawal. Only 58.6% of carvedilol patients were receiving the target dose of 25 mg twice daily at week 8, suggesting that in patients with severe heart failure slower titration may be necessary".

You may be aware of our recent Prescribing Data in General Practice Demonstration (PDGPD) project. This project was a quality improvement activity that allowed GPs to use their own prescribing data for systematic review of patient management and for peer comparison. The project focused on two clinical areas - CHF and hypertension. A data extraction tool was used to extract prescribing data for clinical indicators (developed from evidence based guidelines). One of the CHF indicators, CHF2, specifically targeted heart-failure-specific beta blockers - number of adult patients with CHF using an ACE inhibitor or angiotensin II-receptor antagonist, and not using a heart-failure-specific beta blocker. The results are currently being analysed to determine if the QI activity improved prescribing of heart-failure-specific beta blockers. I will be able to update you with the results once analysis is complete.

I agree that the above information does support the statement that the rates of heart-failure-specific beta blocker intolerance or contraindication are unclear but not sure it supports "but are likely to be at least 10%".
I'm also not sure about it being reasonable to expect at least a 70% compliance rate with the indicator (only that although the above audit indicated a 68% compliance rate, the bias of the sample (see above) places doubts on whether this figure is representative of the entire population).
Perhaps rewording of the limitations is the way to go given the lack of data? Do you think my thoughts are justified? (I'm just learning too so happy for any comments you may have!)

Let me know if this helps you at all.

Thanks and kind regards,
Clare.

P.S. there may be more current references than the ones listed below...this was just taken from the last visiting topic we did at NPS.

References from background materials:
1. Cleland JG, et al. Management of heart failure in primary care (the IMPROVEMENT of Heart Failure Programme): an international survey. Lancet 2002;360(9346):1631-9

2. Fuat A, et al. Barriers to accurate diagnosis and effective management of heart failure in primary care: qualitative study. BMJ 2003;326(7382):196
3. Phillips S, et al. Barriers to diagnosing and managing heart failure in primary care. MJA 2004;181(2):78-81
4. Therapeutic Guidelines: Cardiovascular Version. 4th ed. Melbourne: Therapeutic Guidelines Limited; 2003
5. PRODIGY Guidance-Heart failure. UK Department of Health; 2004 Available at: www.prodigy.nhs.uk/guidance.asp?gt=Heartfailure Accessed October 2004.
6. Gottlieb SS, et al. Tolerability of beta-blocker initiation and titration in the Metoprolol CR/XL Randomized Intervention Trial in Congestive Heart Failure (MERIT-HF). Circulation 2002;105(10):1182-8
7. Krum H, et al. Effects of initiating carvedilol in patients with severe chronic heart failure: results from the COPERNICUS Study. JAMA 2003;289(6):712-8

-----Original Message-----
From: Karen Kaye
Sent: Monday, 5 March 2012 8:26 AM
To: Jeff Elliott; Clare Delaney
Subject: FW: Indicator for heart failure

Jeff, Clare
Do you have any advice for Sasha?
Karen

-----Original Message-----
From: Alexandra Bennett [mailto:sashab65@gmail.com]
Sent: Sunday, 4 March 2012 7:47 PM
To: Karen Kaye
Subject: Indicator for heart failure

Hi Karen,
Hope you have had a good week and didn't have too late a night on Monday! We are madly trying to get these indicators updated. I am wondering whether NPS has info that might be able to help given NPS's long interest in HF. I have attached the updated indicator and as you will see there is NPS info about the optimal adherence rate to guideline recommendations with regard to ACE inhib/ARAs in HF. I wondered whether there is any info regarding intolerance etc for BBs in the Australian HF population and whether there was any idea what the adherence rate (with the HF recommendations) would be the most we could expect in an ideal world for the combination of ACEIs/ARAs plus BBs.
Very happy to have a chat with someone- Danielle? if you think NPS has it. Or perhaps we just word the Limitations differently???
Best wishes,
Sasha

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From: "John Atherton" <John_Atherton@health.qld.gov.au>
To: "NSW TAG" <nswtag@stvincents.com.au>
Date: 3/12/2012 11:22 pm
Subject: Re: Indicator measure for heart failure

Hi Sasha,

Good questions. Not sure I have the answers.

what guideline adherence rate regarding combination
ACEI/ARA and BB prescription in systolic Hf could one expect in an ideal world (so
that hospitals might have some idea how well they are doing)? Also what is the
percentage of systolic HF patients that would be eligiible for BB prescription
when one also includes those with all contra-indications or intolerances?

It depends on what you include in your denominator.

Looking at all-comers in EHFS II, 80%of HF patients were discharged on ACEi or ARB and 62% on beta blockers. In the OPTIMIZE registry, 63% of HF patients were discharged on ACEi or ARB and 65% on beta blockers. In our own Asia Pacific ADHERE registry, 63%of all HF patients were discharged on ACEi or ARB and only 41% on beta blockers. If you restrict this to systolic HF, then 72% were discharged on ACEi or ARB and 48% on beta blockers. In the ADHERE registry conducted in the US, 70% of systolic HF were discharged on ACEi or ARB and 78% on beta blockers.

If you decide to exclude ineligible patients from your denominator to aim for an ideal population (ie, exclude patients with contraindications to therapy), then you would obviously expect higher rates. In the OPTIMIZE registry, about 91% of systolic heart failure patients were eligible to receive beta blockers and 84% were eligible to receive ACEi or ARB (I don't think this includes intolerance) . 83% of eligible systolic HF patients were prescribed an ACEi or ARB and 83% were prescribed a beta blocker (although this did not specify "heart failure beta blocker").

So if you are defining an ideal indicator (ie, systolic HF with no contraindications and no documented intolerance), I think it would be reasonable to aim for >85-90%.

Hope this helps.

Good luck!
John

>>> "NSW TAG" <nswtag@stvincents.com.au> 3/6/2012 3:34 pm >>>
Dear Dr Atherton,
NSW Therapeutic Advisory Group (NSW TAG) is in the process of updating its Quality Use of Medicines Indicators for Australian Hospitals. These indicators were first produced in 2007 and are used to help hospitals audit various areas of practice and drive practice change. One of the indicators concerns heart failure. The previous version measured "The percentage of patients with chronic heart failure that are prescribed appropriate medications at discharge". Appropriate medications were ACE inhibitors (or ARAs). In the new 2012 version we would like to better define HF and include beta-blockers as part of the appropriate medication regimen. I have attached the proposed new version. I am aware of the great work you and your team having been doing in Queensland with regard to promotion of evidence-based meds for HF and up-titration after discharge and I am hoping you might help me with a couple of questions. An outstanding question with regard to the indicator is what guideline adherence rate regarding combination ACEI/ARA and BB prescription in systolic Hf could one expect in an ideal world (so that hospitals might have some idea how well they are doing)? Also what is the percentage of systolic HF patients that would be eligiible for BB prescription when one also includes those with all contra-indications or intolerances? Any other comments would also be welcome.

Kind regards,
Sasha
(PS We have gone with 40% ejection fraction for the systolic HF diagnosis as this is what is in the Australian guidelines although I am aware that other thresholds are used).

Sasha Bennett
Executive Officer
NSW Therapeutic Advisory Group
PO Box 766
Darlinghurst
NSW 2010
02 8382 2852

Available Monday-Thursday.

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