Striving for improvement - Data management, Plan-Do-Study-Act (PDSA) & Accreditation

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1 - 3 November 2017

(Organizers: Infectious Disease Control Training Centre, Hospital Authority/Infection Control Branch, Centre for Health Protection and Chief Infection Control Officer’s Office).
High-performance management system (HPMS)

- “Doing the Work, Improving the Work”
  - Quality Planning (QP)
  - Quality Control (QC)
  - Quality Improvement (QI)

What is Quality Improvement and Quality Control?

- **Quality Improvement** is a formal approach to the analysis of performance and systematic efforts to improve it
  - **Quality initiative**
    - A designated team of managers and staff with relevant expertise & technical support from dedicated QI specialists
    - **Analyse** current processes, **identify** the symptoms and causes of poor quality, and frame a theory of what is required to improve the process
    - Uses a variety of methods and tools to develop, test, and implement changes, and if needed redesigns the relevant processes
  - Following successful improvement, **Quality Control** is used to **monitor the redesigned process to ensure it performs at a new level** (with new upper and lower control limits), with new work specifications, improved results, and reduced variation
    - Run charts, Control charts

Quality Improvement initiative?

- Three questions
- The Plan-Do-Study-Act (PDSA) cycle guides the test of a change to determine if the change is an improvement

Model for Improvement:

<table>
<thead>
<tr>
<th>What are we trying to accomplish?</th>
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<tbody>
<tr>
<td>How will we know that a change is an improvement?</td>
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<tr>
<td>What change can we make that will result in improvement?</td>
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</tbody>
</table>

http://www.ihi.org
Sequence of Improvement

- Developing a change
- Testing a change
- Implementing a change
- Test under a variety of conditions
- Make part of routine operations
- Spreading a change to other locations

Plan-Do-Check

DATA

Hunches theories ideas

Very small scale tests

Follow-up tests

Wide-scale tests for change

Implementation of change

Changes that result in improvement

Quality Improvement Teams

- 1st - Review the aim
- 2nd - Consider the system/s that relate to that aim
- 3rd - Ensure the team includes members familiar with all the different parts of the process
  - Managers and administrators as well as those who work in the process, including physicians, pharmacists, nurses, and front-line workers
- 4th - Executive sponsor who takes responsibility for the success of the project

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Quality Improvement Teams

- **Clinical Leader**
  - Authority in the organization to test and implement a change that has been suggested and to deal with issues that arise
  - Understands both the clinical implications of proposed changes and the consequences

- **Technical Expertise**
  - Know the subject intimately and who understands the processes of care
  - Help the team determine what to measure, assisting in design of simple, effective measurement tools, and providing guidance on collection, interpretation, and display of data

- **Day-to-Day Leadership**
  - A day-to-day leader is the driver of the project, assuring that tests are implemented and overseeing data collection
  - Understands the details of the system & effects of making change/s in the system
  - Work effectively with the physician champion/s

http://www.ihi.org
Quality Improvement Teams

- **Project Sponsor**
  - Someone with executive authority
    - Liaise with other areas of the organization
    - Serve as a link to senior management and the strategic aims of the organization
    - Provide resources and overcome barriers on behalf of the team, **minimise pushback**
    - Provide accountability for the team members.
      - Not a day-to-day participant in team meetings and testing, but should review the team's progress on a regular basis

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**Aim** - outlining the project goal or vision - what will be improved, by how much, for whom, and by when

**Primary Drivers** - high-level interventions to achieve the aim

**Secondary Drivers** - secondary factors or interventions needed to achieve the primary drivers. List as many as you can think of

**Change Ideas** - are well defined change concepts or interventions to address the secondary drivers

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**AIM**

- **Aim**: Reduce by 50% colonisation & infection with MRSA by May 31st 2018

**PRIMARY DRIVERS**

- Decolonisation
- Screening - target high risk areas
- Hand hygiene
- Aseptic technique

**SECONDARY DRIVERS**

- CHG wash
- Nasal Mupirocin or antiseptic
- Test standing order for admission screening
- Audit & feedback HH compliance
- Test a pocket alcohol based hand rub
- Simulated training program for CVC insertion in high risk areas
Useful tools - Pareto Chart

- The Pareto principle is a principle, named after economist Vilfredo Pareto, that specifies an unequal relationship between inputs and outputs.

- The principle states that 20% of the invested input is responsible for 80% of the results obtained.

- Pareto Principle
  - The observation (not law) that most things in life are not distributed evenly.
  - A rough guide about typical distributions.

- The key point:
  - Most things in life (effort, reward, output) are not distributed evenly - some contribute more than others.
Useful tools - Pareto Chart

- Type of bar chart
  - Various factors that contribute to an overall effect are arranged in order from the largest to the smallest contribution to the effect
  - This ordering helps identify:
    - The “vital few”
      - Factors that have the largest contribution to the effect and therefore warrant the most attention
    - As distinguished from the “useful many”
      - Factors that while useful to know about have a relatively smaller contribution to the effect
  - Using a Pareto chart helps teams to concentrate their improvement efforts on:
    - Factors that have the greatest impact and
    - Explain their rationale for focusing on certain areas and not other
Useful tools - Pareto Chart

- Order the factors - magnitude of contribution
- Calculate the % of the total that each factor contributes
- Largest to smallest - calculate the cumulative % for each category until you reach 100%
- Draw and label the left vertical axis (Y)
- Draw and label the horizontal axis (X)
- Draw and label the right vertical axis “Cumulative Percentage,” from 0% to 100%
- Draw a bar chart to depict the magnitude of effect
- Draw a line graph of the cumulative %
- Annotate the diagram to indicate the cumulative % associated with the “vital few”
  - i.e. draw an arrow to the first three error types that account for 75% to 80% of all errors

Image - QI Essentials Toolkit - Copyright © 2017 Institute for Healthcare Improvement
Useful tools - Statistical Process Control Charts (SPC)

- Why use control charts?
- Valid
  - Industry
  - Healthcare
- Simple
  - Application
    - Raw data - counts
    - Rates
- Easy to interpret
  - Well understood at ward/unit level
    - Require little understanding of rates, risk adjustment & statistical analysis
- More timely for implementing action
  - Ward/unit level
  - Infection control level
Useful tools - Statistical Process Control Charts (SPC)

- Why use control charts?
  - Limited resources
    - More cost effective use of infection control resources
  - Good understanding of the objectives and use of control charts at many levels
    - Boards
    - Executive management
    - Quality Units
    - Government departments
    - Finance

$\textbf{\$\$\$\$\$\$\$ FUNDING}$
Useful tools - Statistical Process Control Charts (SPC)

- A simple graphical method of discriminating between the 2 sources of variation
  - Special cause variation
  - Common cause variation
- A data point that falls outside the control limits
  - Suggests a special cause variation
- Random variation of data points within the limits
  - Suggests common cause variation
- Charts have 3 lines
  - Central line = mean
  - UCL = upper control limit - 3SD above the mean
  - LCL = lower control limit - 3SD below the mean
  - UWL = upper warning limit - 2SD above the mean
Useful tools - Statistical Process Control Charts (SPC)

- Glasgow Royal Infirmary
  - 1,116 beds
  - Tertiary referral centre

- Hospital wide feedback program
  - Prospective and historical monthly data on MRSA cases for 24 wards and units - control charts
  - IC team interpretation of every new MRSA

- Feedback monthly
  - Include information relating to practice/other changes
    - Hand hygiene
    - Cleaning
  - Ward staff
  - Medical unit staff

Useful tools - Statistical Process Control Charts (SPC)

- **Results**
  - 50% reduction in new MRSA acquisitions post the use of the charts

- **Benefits**
  - Faster response by IC team
  - Assigning responsibility
  - Informing decisions to close wards

- **Large multicentre study in the UK**
  - The CHART Project
  - Grant £320K
Useful tools - Statistical Process Control Charts (SPC)

- **Multicentre randomised controlled trial**
  - Whether monthly SPC feedback to staff of ward-acquired MRSA rates would produce a reduction in incidence
  - 75 wards in 24 hospitals in the UK

- **Randomised into three arms**
  - Wards receiving SPC chart feedback
  - Wards receiving SPC chart feedback in conjunction with structured diagnostic tools
  - Control wards receiving neither type of feedback

- 25mths of pre-intervention MRSA data were compared with 24mths of post-intervention data

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Curran E et al. Results of a multicentre randomised controlled trial of statistical process control charts and structured diagnostic tools to reduce ward acquired meticillin-resistant Staphylococcus aureus: the CHART Project. Journal of Hospital Infection (2008) 70, 127-135
Useful tools - Statistical Process Control Charts (SPC)

Results

- Statistically significant and sustained decreases in MRSA rates were identified in all three arms (P < 0.001; P ≈ 0.015; P < 0.001)
- The mean percentage reduction was 32.3% for wards receiving SPC feedback, 19.6% for wards receiving SPC and diagnostic feedback, and 23.1% for control wards
- There was no significant difference between the control and intervention arms (P ≈ 0.23)
- There were significantly more post-intervention 'out-of-control' episodes (P = 0.021) in the control arm (averages of 0.60, 0.28, and 0.28 for Control, SPC and SPC+Tools wards, respectively)
- Participants identified SPC charts as an effective communication tool and valuable for disseminating WA-MRSA data

The CHART project

Sample chart for an SPC + Tools ward at the end of the study

Out-of-control episode

Chart comment March 2006 - This chart continues stable and in control around the lowered centre line - Well Done

Centre Line lowered in March 2005 after 8 consecutive results less than 1.

Curran E et al. Results of a multicentre randomised controlled trial of statistical process control charts and structured diagnostic tools to reduce ward acquired meticillin-resistant Staphylococcus aureus: the CHART Project. Journal of Hospital Infection (2008) 70, 127-135
Useful tools - Statistical Process Control Charts (SPC)

- To evaluate the impact of serial interventions on the incidence of methicillin-resistant *Staphylococcus aureus* (MRSA)
  - Longitudinal observational study before and after interventions
  - The Alfred Hospital is a 350-bed tertiary referral hospital with a 35-bed intensive care unit (ICU)
- A series of interventions
  - Introduction of an antimicrobial hand-hygiene gel to the intensive care unit and a hospitalwide
  - MRSA surveillance feedback program that used statistical process control charts but not active surveillance cultures
- Interventions introduced between January 2003 - May 2006
- Incidence and rates of new patients colonized or infected with MRSA and episodes of MRSA bacteremia in the intensive care unit and hospital wide were compared between the pre-intervention and intervention periods

*Harrington G et al. Reduction in Hospitalwide Incidence of Infection or Colonization with Methicillin-Resistant Staphylococcus aureus With Use of Antimicrobial Hand-Hygiene Gel and Statistical Process Control Charts. ICHE 2007; 27: 837-844*
Useful tools - Statistical Process Control Charts (SPC)

- **Results**

- **Intervention period**
  - Rate of new patients with MRSA in the ICU was 6.7 cases per 100 patient admissions
  - The hospitalwide rate of new patients with MRSA was 1.7 cases per 100 patient admissions

- **Pre-intervention period**
  - Rate of new patients with MRSA in the ICU was 9.3 cases per 100 patient admissions in the ($P = .047$)
  - 3.0 cases per 100 patient admissions in the pre-intervention period ($P < .001$)

*Harrington G et al. Reduction in Hospitalwide Incidence of Infection or Colonization with Methicillin-Resistant Staphylococcus aureus With Use of Antimicrobial Hand-Hygiene Gel and Statistical Process Control Charts. ICHE 2007; 27: 837-844*
Useful tools - Statistical Process Control Charts (SPC)

- Results

- Segmented regression analysis
  - Maximum and conservative estimates for percentage reduction in the rate of new patients with MRSA were 79.5% and 42.0%, respectively
  - Maximum and conservative estimates for percentage reduction in the rate of episodes of MRSA bacteremia were 87.4% and 39.0%, respectively
  - A sustained reduction in the number of new patients with MRSA colonization or infection has been demonstrated using minimal resources and a limited number of interventions

*Harrington G et al. Reduction in Hospitalwide Incidence of Infection or Colonization with Methicillin-Resistant Staphylococcus aureus With Use of Antimicrobial Hand-Hygiene Gel and Statistical Process Control Charts. ICHE 2007; 27: 837-844*
Useful tools - Statistical Process Control Charts (SPC)

New MRSAs Patients per Month in ICU

- Statistical Process Control Charts (SPC)

- New MRSAs Patients per Month in ICU

- 3SD Action Limit
- 2SD Warning Limit
- Average
- Sterigel+® & antibiotic resistant organism signs in ICU
- Microshield® in ICU
- SPC Charts in ICU

8 or more consecutive data points on the same side of the mean indicating a shift in the process

Useful tools - Statistical Process Control Charts (SPC)

New MRSA Patients per Month Hospitalwide

8 or more consecutive data points on the same side of the mean indicating a shift in the process

Useful tools - Performance dashboards/cockpit reports

- **Leadership decision support tools**
  - Based on an understanding of interrelationships between functions
    - Not individual or unit performance
  - Opportunity for organisational learning at the executive level
- **Plot selected quality and safety performance metrics**
- **The vital few...**
  - Targeted at what you want to improve
  - Trending capability/track internal progress
  - Able to benchmark against other organisations/national comparisons

*Denham C. J Patient Saf Volume 2, Number 1, March 2006*
Useful tools - Performance dashboards/cockpit reports

- Focused on the overarching requirements
  - Areas that are critically important
- Reflects the culture and the aims of the organisation
  - Corporate culture
  - Organisations vision
- Dashboard/cockpit reports
  - How we were, where we are and how we are progressing
    - Working in teams
    - Clinical process re-design
  - Identify from other where you are in the scheme of transformation
  - Learn from others best practice
- Reduces information overload, by focusing on the “vital few” indicators

Denham C. J Patient Saf Volume 2, Number 1, March 2006
Strategies to initiate a Quality Improvement Infection Control Project

- Planning your quality improvement project
  - Identify opportunities for improvement
    - Listening to staff and patients
    - Conducting a needs assessment
    - Surveys/audits
    - Infection Control Surveillance data
    - Observation

- Once an opportunity for improvement has been identified
  - Organise a Team.....
    - Multidisciplinary
      - Nursing, Medical, Infection Control, Infectious Diseases, Microbiology, Pharmacy
    - Enlist support from managers
    - Define who is going to be responsible for what
    - Divide up the work to be done
    - Do you need a team facilitator?
      - The outside view
        - Is the team on the right track
      - How often will you meet?
Strategies to initiate a Quality Improvement Infection Control Project

- Organise a Team.......
  - Give those at a local level ownership of the project
    - Buy in from team members
      - Academic reward
        - Presentation at a conference
        - Poster
  - Showcase the project
    - Hospital newsletter
    - Presentations in peer forums
    - Awards
Strategies to initiate a Quality Improvement Infection Control Project

- Clarify the current process
  - Is the process standardised?
  - What is needed to standardise the process?
  - Use quality improvement tools
    - Flow charts
- Develop a data collection plan
- What are you trying to do?
  - Obtain an objective view of the process and understand how it is working
    - Determine what you are trying to measure
    - Determine how often, how long and for what time
    - Must be manageable - regularly review
Strategies to initiate a Quality Improvement Infection Control Project

- Develop a data collection plan
  - Develop a data collection tool and pilot test
  - Determine who will assemble the data
  - Determine who will verify and analyse the data
  - Participation by all members of the team
- Allow time to get your project up and running well
- Identify variations in the process
  - Target those that will provide the best return for your effort
  - “Separating the vital few from the trivial many”

Strategies to initiate a Quality Improvement Infection Control Project

- Prepare infection control briefing material
  - Infection Control committee
  - Risk management committee
  - Quality improvement committee
  - Key Hospital Executives
    - CEO, GM
  - Key Clinical staff/stakeholders
    - Managers of high risk patient care areas
      - ICU
      - Haematology/Oncology
      - Transplant
      - Orthopaedic procedures

Institute of Healthcare Improvement Project JOINTS

IHI Project JOINTS_http://www.ihi.org/Engage/Initiatives/Completed/ProjectJOINTS/Pages/default.aspx
Strategies to initiate a Quality Improvement Infection Control Project

Institute of Healthcare Improvement Project JOINTS

- Prepare infection control briefing material
  - “A Brief for Hospital Administrators: The Business Case for Preventing SSI for Hip and Knee Arthroplasty,”
- One-Pager for Surgeons
- How-to Guide: Prevent Surgical Site Infection for Hip and Knee Arthroplasty

IHI Project JOINTS_http://www.ihi.org/Engage/Initiatives/Completed/ProjectJOINTS/Pages/default.aspx
Strategies to initiate a Quality Improvement Infection Control Project

- Find a champion
- Develop a campaign slogan
  - “One is too many”
- Storytelling
  - Tell or include a patient’s story
- Engage the public
Strategies to initiate a Quality Improvement Infection Control Project

- ORION (Outbreak Reports and Intervention Studies of Nosocomial infection)
  - Consists of a **22 item checklist** for reporting an outbreak or intervention study of a nosocomial organism

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**The ORION statement: guidelines for transparent reporting of outbreak reports and intervention studies of nosocomial infection**

Sheldon P. Stone, Ben S. Cooper, Chris C. Kibbler, Barry D. Cockram, Jenny A. Roberts, Graham F. Medley, Georgia Duckworth, Rosalind Lai, Shah Ebrahim, Erwin M. Brown, Phil Wiffen, Peter G. Davey

The quality of research in hospital epidemiology (infection control) must be improved to be robust enough to influence policy and practice. In order to raise the standards of research and publication, a CONSORT equivalent for these largely quasi-experimental studies has been prepared by the authors of two relevant systematic reviews, following consultation with learned societies, editors of journals, and researchers. The ORION (Outbreak Reports and Intervention Studies Of Nosocomial infection) statement consists of a 22 item checklist, and a summary table. The emphasis is on transparency to improve the quality of reporting and on the use of appropriate statistical techniques. The statement has been endorsed by a number of professional special interest groups and societies. Like CONSORT, ORION should be considered a “work in progress”, which requires ongoing dialogue for successful promotion and dissemination. The statement is therefore offered for further public discussion. Journals and research councils are strongly recommended to incorporate it into their submission and reviewing processes. Feedback to the authors is encouraged and the statement will be revised in 2 years.

*Lancet Infect Dis 2007; 7:282–88*
QI strategies - Regular review of the literature

- Keep up-to-date with the literature
  - Essential for developing your own QI strategies
  - Helps you identify “issues that are of sufficient importance”

- Strategies
  - Try to read 3 - 4 peer review publications per week
  - Discuss 1 peer review publication with your team per week
  - Discuss 1 posting on an infection control blog site per week
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Accreditation - Australian Commission on Safety and Quality in Healthcare

National Safety and Quality Health Service Standards

- Australian Commission on Safety and Quality in Healthcare
  - A government agency that leads and coordinates national improvements in safety and quality in health care across Australia
  - Aim:
    - To support healthcare professionals, organisations and policy makers who work with patients and carers

In September 2011, Health Ministers endorsed the NSQHS Standards and a national accreditation scheme for health service organisations.
Accreditation - Australian Commission on Safety and Quality in Healthcare
National Safety and Quality Health Service Standards

State and territory health departments endorsed the Australian Health Service Safety and Quality Accreditation Scheme (AHSSQA) which requires all hospitals and day procedure services to be accredited to the NSQHS Standards.

All hospitals and day procedure services and the majority of public dental services across Australia need to implement the NSQHS Standards.

Accreditation - Australian Commission on Safety and Quality in Healthcare
National Safety and Quality Health Service Standards

- The National Safety and Quality Health Service (NSQHS) Standards deal with the following areas:
  - Governance for Safety and Quality in Health Service Organisations
  - Partnering with Consumers
  - Preventing and Controlling Healthcare Associated Infections
  - Medication Safety
  - Patient Identification and Procedure Matching
  - Clinical Handover
  - Blood and Blood Products
  - Preventing and Managing Pressure Injuries
  - Recognising and Responding to Clinical Deterioration in Acute Health Care
  - Preventing Falls and Harm from Falls
## Accreditation ratings

### Previous

- **Little Achievement (LA)**
  - Awareness in a particular criteria

- **Satisfaction Achievement (SA)**
  - Implementation of relevant policy and strategy

- **Moderate Achievement (MA)**
  - Evaluation of the strategies

### Current

- **Met**

- **Not met**

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**The new requirements mean that:**

- **Standards are no longer assessed ‘on balance’ and**
- **Health services must provide evidence that each action is “met”**
Notification of significant risk

- Accrediting agencies are to notify the regulator (i.e., health department) and the commission when a significant patient risk is identified.

- Notification should be made within 48 hours.

- The notification is to include an action plan developed by the health service organisation to mitigate the patient risk.
# National Safety and Quality Health Service Standards

## Preventing and Controlling Healthcare Associated Infections

### Standard 3

**The Preventing and Controlling Healthcare Associated Infections Standard:**
Clinical leaders and senior managers of a health service organisation implement systems to prevent and manage healthcare associated infections and communicate these to the workforce to achieve appropriate outcomes. Directors and other members of the workforce use the healthcare associated infection prevention and control systems.

**The intention of this Standard is to:**
- Prevent patients from acquiring preventable healthcare associated infections and effectively reduce infection where they occur by using evidence-based strategies.

**Context:**
- It is expected that this Standard will be applied in conjunction with Standard 1, Governance for Safety and Quality in Health Service Organisations; and Standard 2, Partnering with Consumers.

### Criteria to achieve the Preventing and Controlling Healthcare Associated Infections Standard:
- Governance and systems for infection prevention, control and surveillance: Effective governance and management systems for healthcare associated infections are implemented and maintained.
- Infection prevention and control strategies: Strategies for the prevention and control of healthcare associated infections are developed and implemented.
- Managing patients with infections or colonisation: Patients presenting with, or acquiring an infection or colonisation during their care are identified promptly and receive the necessary management and treatment.
- Antimicrobial stewardship: Safe and appropriate antimicrobial prescribing is a strategic goal of the clinical governance system.
- Cleaning, disinfection and sterilisation: Healthcare facilities and the associated equipment are clean and hygienic. Implementation of evidence and transmission control current best practice guidelines.
- Communicating with patients and carers: Information on healthcare associated infections is provided to patients, carers, consumers and service providers.

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### Governance and systems for infection prevention, control and surveillance

1. Effective governance and management systems for healthcare associated infections are implemented and maintained.

#### This criterion will be achieved by:

<table>
<thead>
<tr>
<th>Actions required:</th>
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<tr>
<td>3.1.1 A risk management approach is taken when implementing policies, procedures and/or protocols for:</td>
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<td>3.1.2 The use of policies, procedures and/or protocols is regularly monitored.</td>
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<td>3.1.3 The effectiveness of the infection prevention and control systems is regularly reviewed at the highest level of governance in the organisation.</td>
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<tr>
<td>3.1.4 Action is taken to improve the effectiveness of infection prevention and control policies, procedures and/or protocols.</td>
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### Undertaking surveillance of healthcare associated infections:

1. Surveillance systems for healthcare associated infections are in place.

#### This criterion will be achieved by:

- Surveillance data are regularly monitored by the delegated workforce and/or committees.
The Role of Accrediting Agencies
The Role of Accrediting Agencies

- Accrediting agencies wishing to accredit health service organisations to the NSQHS Standards must undergo a formal application and assessment process.

- Accrediting agencies seeking approval must:
  - Hold current organisational accreditation with an international recognised body such as International Society for Quality in Healthcare (ISQua) or Joint Accreditation System of Australia and New Zealand (JAS-ANZ).
  - Offer accreditation programs using the NSQHS Standards.
  - Maintain an assessor workforce with the skills, knowledge and experience to effectively perform their role and maximise inter-assessor reliability.
  - Have a formal process for managing complaints and appeals by health service organisations.
  - Agree to the conditions of approval to assess to the NSQHS Standards and/or the Trauma Recovery Program (TRP) Standards.

- Applications:
  - Assessed by a panel which includes representatives from the public and private health care sectors, as well as senior Commission staff and a representative from the Department of Veterans’ Affairs.
  - The Assessment Panel is convened biannually.
ACSQHC - Approved Accrediting Agencies

Approved Accrediting Agencies

As at 23 December 2015 the following agencies are approved to assess health service organisations to the NSQHS Standards.

The Australian Council on Healthcare Standards
5 Macarthur Street
Ultimo NSW 2007
Phone: 02 9281 9255
Email: acsqs@achs.org.au
Website: www.achs.org.au

BSI Group ANZ Pty Ltd
Level 7, Suite 2
13 Telopea Rd
North Ryde NSW 2113
Phone: 1300 730 134
Phone: 02 8077 1100
Email: sales.au@bsigroup.com
Website: www.bsigroup.com.au

Global Mark Pty Ltd
Suite 4.07
32 Dalhill Road
North Ryde NSW 2113
Phone: 1300 766 529
Phone: 02 9886 0222
Email: Health@Global-Mark.com.au
Website: www.global-mark.com.au

HDAA Australia Pty Ltd
PO Box 365
North Lakes QLD 4509
Free Phone: 1800 603 596
Phone: 07 3491 6878
Contact: Suzanne Le Huray, General Manager
Email: susanne.lehuray@hdaa.com.au
Website: www.hdau.com.au

Institute for Healthy Communities Australia Certification Pty Ltd
PO Box 5082
West End QLD 4101
Phone: 07 3644 2222
Email: ihca@ihcac.com.au
Website: www.ihcac.com.au

International Standards Certifications Pty Ltd
Level 4, 101 Miller Street
North Sydney NSW 2060
Phone: 02 9603 9546
Contact: Elizabeth McLaughlin, Administration - Health and Accreditation
Email: elizabeth.mclaughlin@isnql.com
Website: www.isc-worldwide.com www.drvgl.com

AGPAL Group of Companies
Incorporating Australian General Practice Accreditation Limited (AGPAL) and Quality Innovation Performance Limited (QIP)
PO Box 2058
Milton BC QLD 4064
Phone: 1300 888 329
Email: info@gp.com.au
Website: www.gp.com.au

SAC Global Certification Services Pty Ltd
Level 37, 880 George Street
Sydney NSW 2000
Client Service Centre: 1300 350 314
Phone: 0499 029 442
Contact:Ann Knight, Technical Manager – Health
Email: ann.knight@sacglobal.com
Website: www.sacglobal.com

TOCS International Pty Ltd
PO Box 480
Woodville SA 5011
Free Phone: 1800 666 739
Phone: 8347 9863
Contact: Stuart Batchelor, General Manager, TOCS (Australia)
Email: jcm@topsi.com
Website: www.topsi.com

TRIM: 88876

AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE

NSQHS STANDARDS

TRIM: 88876
Standard 3 - Preventing and Controlling Healthcare Associated Infections

**Action 3.16.1** of the National Safety and Quality Health Service (NSQHS) Standards states:

- “Compliance with relevant national or international standards and manufacturer’s instructions for cleaning, disinfection and sterilisation of reusable instruments and devices is regularly monitored”
Health Service Organisations will need to:

a) complete a gap analysis to determine the current level of compliance with AS/NZS 4187:2014 and document the findings

b) document a detailed implementation plan specifying timeframes to enable full implementation of AS/NZS 4187:2014 over a five year period, from December 2016

c) implement the plan and demonstrate progress toward implementation
Standard 3 - Preventing and Controlling Healthcare Associated Infections

- **3.16 Reprocessing reusable medical equipment, instruments and devices** in accordance with relevant national or international standards and manufacturers’ instructions
3.16 Reprocessing reusable medical equipment, instruments and devices in accordance with relevant national or international standards and manufacturers’ instructions

Accrediting Agencies are required to:

- a) Assess progress on implementation at each accreditation assessment
- b) Rate Action 3.16.1 “met” only in health service organisations that demonstrate progress towards full implementation as set out in their implementation plan for AS/NZS 4187:2014
Standard 3 - Preventing and Controlling Healthcare Associated Infections

- Implementation plan
- Accreditation agency

  - Establish the governance process for the implementation plan?
    - Who is responsible, including executive management
  
  - Where is progress on the implementation plan being reported in the organisation and how often?
  
  - Does the plan include allocation of resources as needed?
    - If not establish why not with those responsible for governance
  
  - Determine if there have been any delays in the implementation plan and what action has been or is being taken to rectify these delays
Standard 3 - Preventing and Controlling Healthcare Associated Infections

- GAP Analysis
  - a) complete a gap analysis to determine compliance with AS/NZS 4187:2014 and document the findings

- Accreditation agency
  - Has the gap analysis been undertaken?
    - If no why not?
  - View/sight this document
  - Has the gap analysis covered all “Sections” of AS/NZS 4187:2004?
  - Where in the organisation were the findings reported?
  - Who in executive management has ultimate responsibility for the findings?
  - Have the findings been reported to relevant committees
    - Infection Control committee
    - Quality committee
    - Other
Standard 3 - Preventing and Controlling Healthcare Associated Infections

- GAP Analysis.....
- Accreditation agency.......  
  - What is the governance around the gap analysis findings
    - Line reporting  
    - Committee reporting  
    - Action plan  
- Implementation plan  
- Accreditation agency.........  
  - b) Rate Action 3.16.1 met only in health service organisations that demonstrate progress towards full implementation as set out in their implementation plan for AS/NZS 4187:2014  
  - document a detailed implementation plan specifying timeframes to enable full implementation of AS/NZS 4187:2014 over a five year period, from December 2016  
  - Ensure the plan includes timelines for implementation
What is accreditation?

Accreditation is a status that is conferred on an organisation that has been assessed as having met particular standards.

The two conditions for accreditation are an unambiguous definition of quality (i.e. standards) and an independent review process aimed at identifying the level of similarity between practices and quality standards.
Accreditation in Hong Kong

- 13 Standards
- 47 Criteria
- 16 Mandatory Criteria
  - 1.5.2 The infection control system supports safe practice and ensures a safe environment for consumers/patients and healthcare workers

The ACHS EQuIP6 Hong Kong Guide
Accreditation in Hong Kong

- Mandatory criteria are those where a rating of **Marked Achievement (MA)** or higher is required to gain or maintain ACHS accreditation.

### Table: LA, SA, MA, EA, OA

<table>
<thead>
<tr>
<th>LA</th>
<th>SA</th>
<th>MA</th>
<th>EA</th>
<th>OA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Little Achievement</td>
<td>Some Achievement</td>
<td>Marked Achievement</td>
<td>Extensive Achievement</td>
<td>Outstanding Achievement</td>
</tr>
</tbody>
</table>

**Infection control is a mandatory criteria**

The ACHS EQuI6 Hong Kong Guide
## Accreditation in Hong Kong

<table>
<thead>
<tr>
<th>Achievement Rating</th>
<th>Description</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Little Achievement</td>
<td>LA</td>
</tr>
<tr>
<td>2</td>
<td>Some Achievement (LA + SA)</td>
<td>SA</td>
</tr>
<tr>
<td>3</td>
<td>Marked Achievement (LA + SA + MA)</td>
<td>MA</td>
</tr>
<tr>
<td>4</td>
<td>Extensive Achievement (LA + SA + MA + EA)</td>
<td>EA</td>
</tr>
<tr>
<td>5</td>
<td>Outstanding Achievement (LA + SA + MA + EA + OA)</td>
<td>OA</td>
</tr>
</tbody>
</table>
Accreditation in Hong Kong

- Achieving Extensive achievement (EA)
  - The organisation must:
    - Meet the requirements of all the LA, SA and MA elements
    - Not have any recommendations for the relevant criterion, and
    - Be able to show distinction in its systems and practices for the relevant criterion

- INNOVATION
  - The application of new or better ideas, in order to improve a system, process or service
  - In order for an organisation to self-rate EA
    - CREATE: a new / improved process or procedure that is a better utilisation of resources, adopts new methods, etc.
    - COMPARE: with existing practice, with other institutions, with the literature
    - CALCULATE: the magnitude of the benefit - increased efficiency, reduced costs, fewer complications in consumers / patients, decreased mortality rates in consumers / patients, etc.
    - CONTINUE: the new practice must be sustainable
    - Demonstrate that it has used benchmarking data as the basis of improvement activities

- Evidence
  - Publication of a high-level quality improvement projects
Accreditation in Hong Kong

Achieving OA

To achieve an outstanding achievement (OA)

The organisation must:

- all requirements of the LA, SA, MA and EA elements, as well as demonstrating leadership

- A requirement for external recognition/adoption of the organisation’s achievements

- cannot self-rate at an OA level

  ▶ surveyors should be provided with a brief (one-page) submission summarising the steps taken to achieve this

  ▶ Surveyors may also award an OA rating without a submission from the organisation
Accreditation in Hong Kong

- Four-year cycle

**Phase 1: Self assessment**
- New members provide a self assessment against all criteria.
- Existing members provide progress on action taken towards addressing the recommendations from the previous survey.
- Members submit their register of key organisational risks (risk register).
- Members submit their Quality Improvement Plan.

**Phase 2: Organisation-Wide Survey (OWS)**
- 6 weeks prior to OWS, members provide ACHS with a self assessment against all criteria and progress on action taken towards addressing the recommendations from the previous survey. The Quality Improvement Plan is uploaded to EAT.
- The full risk register is provided to the surveyors at survey.
- All criteria are reviewed and progress on recommendations from the previous survey is reviewed.

**Phase 3: Self assessment**
- Members provide progress on action taken towards addressing the recommendations from the previous survey.
- Members submit their register of key organisational risks (risk register).
- Members submit their Quality Improvement Plan.

**Phase 4: Periodic Review (PR)**
- 6 weeks prior to PR, members provide ACHS with a self assessment against all mandatory criteria and progress on action taken towards addressing the recommendations from the previous survey. The Quality Improvement Plan is uploaded to EAT.
- The full risk register is provided to the surveyors at survey.
- Mandatory criteria are reviewed and progress on recommendations from the previous survey is reviewed.
SECTION 5
Standards, criteria, elements and guidelines
Standard 1.5: The organisation provides safe care and services

<table>
<thead>
<tr>
<th>Criterion</th>
<th>LA Awareness</th>
<th>SA Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Criterion 1.5.2</strong></td>
<td>The infection control system supports safe practice and ensures a safe environment for consumers / patients and healthcare workers. This is a mandatory criterion</td>
<td>a) The infection control system, including the infection control plan, is managed and monitored by a multidisciplinary infection control committee and/or team. b) Infection prevention strategies are integrated into all stages of healthcare planning, including health facility planning, construction and refurbishment. c) There is a planned and documented schedule of regular maintenance and/or monitoring of the environmental factors associated with infection control. d) There are documented risk reduction and containment measures for identified infections. e) Health professionals and other staff are trained in infection prevention and control strategies relevant to their role and responsibilities. f) Infection risks, control strategies and safety requirements are communicated to consumers / patients and carers.</td>
</tr>
<tr>
<td>a) Policy / guidelines addressing infection control are consistent with relevant legislation, standards, guidelines and/or codes of practice, and are readily available to staff. b) The infection control plan includes: (i) hand hygiene and aseptic technique (ii) antimicrobial stewardship and appropriate use of antibiotics (iii) notifiable diseases (iv) outbreak management (v) transmission precautions and occupational exposure prevention and management (vi) sterilisation and reprocessing of instruments and devices. c) The infection control plan addresses environmental factors, including: (i) cleaning services (ii) food safety and kitchen cleaning (iii) linen handling and laundry services (iv) relevant equipment and plant. d) The infection control plan is approved, supported and properly resourced by the governing body and/or its delegated authority. e) There is an effective surveillance system to monitor and report healthcare-associated infections.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## SECTION 5
### Standards, criteria, elements and guidelines
#### Standard 1.5: The organisation provides safe care and services

<table>
<thead>
<tr>
<th>MA</th>
<th>Evaluation: SA plus the following</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a) Compliance with the infection control policy / guidelines is monitored and evaluated, and improvements are made as required.</td>
</tr>
<tr>
<td></td>
<td>b) The infection control system, including all aspects of the infection control plan, is evaluated, and improvements are made as required.</td>
</tr>
<tr>
<td></td>
<td>c) Maintenance and monitoring of environmental factors relevant to infection control are evaluated, and improvements are made as required.</td>
</tr>
<tr>
<td></td>
<td>d) The organisation collects a suite of infection control indicators and evaluates the results, and improvements are made as required.</td>
</tr>
<tr>
<td></td>
<td>e) Education and training in infection prevention and control are evaluated in consultation with relevant staff, and improvements are made as required.</td>
</tr>
<tr>
<td></td>
<td>f) The effectiveness of communication of infection risks, control strategies and safety requirements to consumers / patients, carers, visitors, students and external service providers is</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EA</th>
<th>Distinction: MA plus the following</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a) The organisation shows distinction in its management of infection prevention and control.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OA</th>
<th>Leadership: EA plus the following</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a) The organisation demonstrates it is a leader in infection prevention and control systems.</td>
</tr>
</tbody>
</table>
SECTION 5
Standards, criteria, elements and guidelines
Standard 1.5: The organisation provides safe care and services

Who is responsible for monitoring hand hygiene throughout the organisation?
How does the organisation respond when compliance rates fall in a particular area?

How has the organisation addressed the unnecessary prescribing of antibiotics?
"In God we Trust, all others bring data"
Designing a Data-Informed Decision Process with Edwards Deming: Grandfather of the Lean Startup

The late William Edwards Deming was an American statistician, professor, author, lecturer, and consultant.

He is perhaps best known for the “Plan-Do-Check-Act” cycle popularly named after him, and is also credited for the quote:

“In God we trust; all others must bring data.”—[301]

"It is not enough to do your best; you must know what to do, and then do your best."
Thankyou

Glenys Harrington
Consultant
Infection Control Consultancy (ICC)
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infexion@ozemail.com.au