Hand Hygiene Initiatives in Australia
The National Hand Hygiene Initiative

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Hand Hygiene Australia

Hosted by Jane Barnett
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Overview
- Background
- Key features
- Compliance Data
- Future challenges

Background
- 8 Jurisdictions
- Coordinated hand hygiene programs in
  • VIC
  • QLD
  • NSW
- Different programs & methods

Efficacy of an alcohol/chlorhexidine hand hygiene program in a hospital with high rates of nosocomial methicillin-resistant Staphylococcus aureus (MRSA) infection

Paul D.Johnson, Rhe McMen, Luzelle J.Bowen, Elizabeth A.O’Grady, Susan W.Kraa, Jason.O’Brien, Sonya C.Mayl,
Davide Ermolino, Wendy Sert, Christopher Bachelor, Yvonne Niblock and M Lindsay Chapman

Conclusions: Introduction of ACHRS and a detailed culture-change program was effective in improving hand hygiene compliance and reducing nosocomial MRSA infections, despite high-level MRSA endemicity.

MJA 2005; 183: 509-514

MRSA isolates and patient-episodes of bacteraemia

After 36 months:
- Total MRSA isolates:
  • 40% reduction (95% CI, 23%-58%)
  • 1008 fewer clinical isolates
- Patients with MRSA bacteraemia:
  • 57% reduction in monthly rate (95% CI, 38%-76%)
  • 53 fewer bacteraemias than expected (95% CI, 36–68 episodes)


Significant reductions in methicillin-resistant Staphylococcus aureus bacteraemia and clinical isolates associated with a multisite, hand hygiene culture-change program and subsequent successful statewide roll-out

M.Lindsay Chapman, Sue J_ASM, Rhe McMen, Paul D.Johnson, Yvonne Niblock, Caroline M.McNichol, Roger Tr O’Grady, Karen Bell, Kate Cunningham, Fiona J.White, Dana Gurn and New Haven Kelly, on behalf of the Victorian Quality Council’s Hand Hygiene Study Group and Hand Hygiene Statewide Rollout Group

Conclusions: Pilot and subsequent statewide implementation of a multimodal HHCCCP was effective in significantly improving HH compliance and reducing rates of MRSA infection.

MJA 2006; 188: 613-614

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- Fully funded by the Australian Commission on Safety and Quality in Health Care to implement National Hand Hygiene Initiative
- Leverage off existing hand hygiene programs
- Independent of jurisdiction and hospital

Objectives

- Implement the 5 Moments for Hand Hygiene at a National level
- Establish accurate measurement of
  - Hand Hygiene compliance rates
  - Staphylococcus aureus bloodstream infection rates (MRSA & MSSA)
- Make hand hygiene ‘core business’ for all health care workers
- Reduce rates of healthcare associated infection

Key Components

- Education
  - 2 day workshop
  - Multi modal program
  - How to audit
  - Must pass assessment to submit data
    - Live observations in clinical areas
    - Multi-choice scenarios
    - DVD assessment
    - Annual online assessment
  - Online education packages
    - Medical, Nursing, Allied Health, Non Clinical, Standard

Victoria- MRSA bacteraemias
Patients with MRSA bacteraemia per month per 100 separations

Victoria Hand Hygiene Compliance

Based on the ‘My 5 moments for Hand Hygiene’, URL: https://www.who.int/gpsc/5may/background/5moments/en/index.html © World Health Organization 2009. All rights reserved.
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Key Components

- Reports of hand hygiene compliance rates
  - Hospital
  - Type of ward (Intensive Care Unit etc)
  - State
  - National
- Stratify rates by Healthcare Worker and Moment
- Collection of *staphylococcus aureus* bacteraemia data

Key Components - website

- Number of Moments collected dependent on size of hospital

<table>
<thead>
<tr>
<th>Number of acute inpatient beds at the hospital</th>
<th>Required number of HH audits per year</th>
<th>Required number of words per HH audit*</th>
<th>Required number of HH Moments per ward</th>
<th>Total minimum HH Moments for hospital per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;400</td>
<td>1</td>
<td>7</td>
<td>350</td>
<td>2400</td>
</tr>
<tr>
<td>301-400</td>
<td>3</td>
<td>6</td>
<td>350</td>
<td>2100</td>
</tr>
<tr>
<td>201-300</td>
<td>3</td>
<td>5</td>
<td>350</td>
<td>1750</td>
</tr>
<tr>
<td>101-200</td>
<td>3</td>
<td>4</td>
<td>200</td>
<td>800</td>
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<tr>
<td>51-100</td>
<td>3</td>
<td>2</td>
<td>100</td>
<td>200</td>
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<tr>
<td>26-50</td>
<td>3</td>
<td>1</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>&lt; 25</td>
<td>3</td>
<td>1</td>
<td>50</td>
<td>50</td>
</tr>
</tbody>
</table>

Data collection

Hand Hygiene Compliance Application (HHCApp)

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Mobile Web Application (MWA)

MWA Data collection

www.hha.org.au/hhmobile
Log in
Demographics
Collect compliance data
Synchronise

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HHCAp Report

Overall Compliance Rate

<table>
<thead>
<tr>
<th>Moment</th>
<th>Total Moments</th>
<th>Compliance Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before Touching a Patient</td>
<td>201</td>
<td>154 (76.8%)</td>
</tr>
<tr>
<td>After Flushing a Hand</td>
<td>188</td>
<td>154 (81.9%)</td>
</tr>
<tr>
<td>After Touching a Patient</td>
<td>201</td>
<td>154 (76.8%)</td>
</tr>
</tbody>
</table>

Compliance Rate by Moment

- Direct web entry from enabled devices
  - Eliminates
    - Duplicate data entry
    - Data entry error
  - Reduces data management time by 50%
  - Mobile devices cheap, common
  - Flexible reporting options

Online learning packages

- Compliance Data
  - Period 1 2012
    - Nov 2011 - Mar 2012

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NHHI participation – Private and Public
Period 1 2012 – 629 sites

National Hand Hygiene Compliance rates
482 Public facilities (by jurisdiction) & 147 Private facilities
Period 1 (Jan-Mar) - 2012

National Hand Hygiene Compliance rates
Period 1 2009 to Period 1 2012

Public facilities
M1, M2 & M5 compliance rates by Period

Private facilities
M1, M2 & M5 compliance rates by Period

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National Hand Hygiene Compliance Rates by H.W. - 482 Public facilities & 147 Private facilities
Period 1 (Jan-Mar) - 2012

Public facilities
Nursing and Medical compliance rates by Period

Private facilities
Nursing and Medical compliance rates by Period

HHC rates of Medical staff from Victoria Vs Medical staff from other jurisdictions

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Proportion of Moments submitted by Jurisdiction

National Critical Care Unit Compliance Rates
Period 2 2011

Crit Care Units include:
- Adult & Paed ICU
- Coronary Care
- HDU

National Critical Care Unit Compliance Rates by HCW
Period 2 2011

National Compliance rates by Ward Types
Period 2 2011

Moment 5 compliance rates by HCW
Period 2 2011

43

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47

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Medical Journal Australia

Outcomes from the first 2 years of the Australian National Hand Hygiene Initiative

The Australian National Hand Hygiene Initiative (ANHHI) was established in 2009. The goal of ANHHI is to improve hand hygiene compliance among healthcare workers and to reduce healthcare-associated infections. The initiative was developed by a steering committee consisting of representatives from government agencies, healthcare providers, and hand hygiene experts.

Design and setting. The ANHHI program was based on the hospital-based hand hygiene campaigns, which were successful in improving hand hygiene compliance rates. The program included the development of a comprehensive hand hygiene strategy, the implementation of a hand hygiene promotion campaign, and the establishment of a national surveillance system for monitoring hand hygiene compliance rates.

Results. To date, more than 600 healthcare facilities have participated in the ANHHI program. The program has been successful in improving hand hygiene compliance rates among healthcare workers. The national surveillance system has revealed that the hand hygiene compliance rate has increased from 70% in 2009 to 80% in 2011.

Conclusion. The ANHHI program has been successful in improving hand hygiene compliance rates among healthcare workers. The program has been successful in reducing healthcare-associated infections and improving patient safety. The national surveillance system has been instrumental in monitoring the progress of the program and identifying areas for improvement. The ANHHI program has set a benchmark for other countries to follow in improving hand hygiene rates.
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Future Challenges

- Medical staff
- University curricula
- Meaningful public data
- Reducing the burden of auditing

Future Challenges

- Alleviating the burden of auditing
  - Online data entry
  - Do we need to measure all 5 Moments?
    - Are there any proxy measurements?
  - Electronic monitoring
    - Number of dispenses/volume use
    - Entry/Exit of room
    - Cost
    - Privacy issues

Summary

- Rolled out to 620+ facilities
- High uptake of education
- Consistent measurement of compliance
- Increase in compliance rates
- Parallel reduction in MRSA bacteraemias
- Inclusion as KPI at hospital and executive level
- Improved data management processes

Hand Hygiene Centre for Excellence - WHO

- One of 4 centres worldwide
- Recognises the national leadership work done by HHA & ACSQHC

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Acknowledgments

- Australian Commission on Safety and Quality in Health Care
- Hand Hygiene Coordinators and Infection Prevention teams at participating hospitals
- Hand Hygiene Australia team

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