## Guidebook for Primary Care Settings

A companion to the OSSIE toolkit for implementation of the Australian Guidelines for the Prevention of Infection in Health Care 2010

**Consultation Edition** 

AUSTRALIANCOMMISSION DN SAFETYANDQUALITYINHEALTHCARE

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#### **Consultation Edition**

This edition of the *Guidebook for Primary Care* has been developed as a *Consultation Edition*. It is intended as a companion to the OSSIE toolkit for the implementation of the *Australian Guidelines for the Prevention of Infection in Health Care 2010* (AICG). A working group comprising Infection Control Practitioners and representatives from primary care has guided the development of this *Consultation Edition*, to enable its publication to coincide with the release of the AICG.

We will be seeking feedback on the guidebook from a wide range of stakeholder groups. We are also seeking further review and advice from individuals using the guidebook in primary care practice. The feedback received will assist us with improvement of the guidebook prior to publication of the next edition in 2011.

Comments, feedback and suggestions should be sent to: mail@safetyandquality.gov.au; Attention: HAI team.

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#### Key

|   | Case studies     | Stories from practice which provide a real life example of change or improvement               |
|---|------------------|--|
| ? | Did you know?    | Interesting points relevant to infection prevention and implementation                         |
|   | Helpful hints    | Ideas and suggestions to help make implementation easier                                       |
|   | Lessons learned  | Information and recommendations based on the experience of others                              |
| Q | Link to the AICG | Highlights where readers should refer<br>to more detailed information contained in<br>the AICG |
|   | How to           | Direct the reader to specific tools and resources in the OSSIE toolkit                         |

#### Acronyms and abbreviations

ACSQHC – Australian Commission on Safety and Quality in Health Care

- AICG Australian Infection Control Guidelines
- HAI Healthcare associated infections
- ICP Infection Control Practitioner/Professional
- IP&C Infection Prevention and Control

### Introduction

#### The purpose of this guidebook

is to provide clinicians and managers with practical tools, resources and information that can be used to help implement the *Australian Guidelines for the Prevention and Control of Infection in Health Care* (also known as the Australian Infection Control Guidelines, or AICG)<sup>1</sup> 2010 in primary care settings.

This *Guidebook for Primary Care* complements the more comprehensive OSSIE toolkit, which has drawn on the work of a number of documents developed to support guideline implementation in a range of contexts. The guidebook should be used in conjunction with tools from the OSSIE toolkit.

Australians rightly expect to receive safe, high quality health care. The healthcare system generally fulfils this expectation and provides excellent care. However, some patients acquire infections during their health care and such infections are a leading cause of preventable, and sometimes serious, harm. Apart from the pain and suffering caused to patients, healthcare associated infections (HAI) also have significant resource costs and create more work for healthcare staff. The levels of morbidity and mortality experienced by Australians due to HAI have the potential to be significantly reduced. HAI can occur in any health care setting – including in primary care. However, while the specific risks differ, the basic principles of prevention apply.

The AICG offer a two tiered approach of standard and transmission based precautions. The recommendations in the guidelines are based on the best available evidence and provide high level protection to patients, caregivers, and people who work in health care settings. The presence of the guidelines alone, however, will not be sufficient to ensure their uptake and use in clinical practice. Getting guidelines into practice requires a specific approach, as well as time, resources and ongoing commitment from all in the health care facility regardless of size or context.

1. NHMRC (2010) The Australian Guidelines for the Prevention of Infection in Health Care. Commonwealth of Australia. To be referred to as the Australian Infection Control Guidelines (AICG) throughout this guidebook.

#### Why a primary care focus?

Primary health care is commonly viewed as a first level of care or as the entry point to the health care system for consumers. It can also be taken to mean a particular approach to care which is concerned with continuing care, accessibility, community involvement and collaboration between sectors.

(Commonwealth of Australia, 2009)

For the purposes of this guidebook, primary care is identified to be multidisciplinary in nature and incorporating:

- office based practices, for example general practice clinics, specialist practice clinics, allied health providers, and dental practices
- community health practice, for example clinics, outreach or home visiting services
- emergency services, for
   example ambulance services
- pharmacists and complementary health care providers
- services for specific populations, for example aboriginal or refugee health services, or school health clinics.

## i. Why a supplementary guidebook for primary care?

This *Guidebook for Primary Care* was developed in recognition of the fact that most health care in Australia is provided in primary care settings, but these settings may have less resources available to be allocated to implementation than acute care settings, as is the case with the allocation of resources to quality and safety infrastructure in primary care in general (ACSQHC, 2009).

While the basic principles of HAI prevention apply, the primary care context is very different to acute care, and issues concerning implementation of the AICG will need to be specific to the context. Provision of a resource that provides suggestions and ideas for implementation specific to primary care aims to ease implementation of the AICG across primary care settings. As the diagram below shows, primary care is an important part of the continuum of care of the population and there is an interrelationship which requires collaboration between many health services.



#### ii. How to use this guidebook

- Read the OSSIE toolkit first
- Study this guidebook
- Choose the information most relevant to the setting and context
- **Download** the tools you would like to use
- Click on the links provided to learn more
- List your actions and start implementing the guidelines

This guidebook should be of use to any person who may be responsible for infection control practice within a primary care setting, including:

- · Practice nurses
- Infection Control Practitioners/ Professionals (ICPs)
- · Practice and facility managers
- · Clinicians.

It is acknowledged that primary health care can encompass a broad range of health care services. Throughout the guidebook the term **facility/practice** is used. This should be taken to include practices, stand alone facilities, as well as community health centres, outreach clinics, teams or services that provide primary health care.

OSSIE represents a five phase approach to change management to support implementation of the AICG in practice:

- **O** Organisation leadership
- S Solutions and strategies for implementation
- S Stakeholder engagement
- I Implementation
- E Evaluation and maintenance

#### Quick reference guide to the OSSIE toolkit:

#### Phase one - Organisational leadership

Discusses the need for a project team, localising the guidelines to the current context, evaluating clinical practice against the guidelines, organisational readiness for change, and assessing barriers and enablers of guideline implementation.

Phase two - Simple solutions and strategies for implementation

Provides a framework for change; overviews strategies and solutions to assist implementation; and issues to consider in choosing strategies

Phase three - Stakeholder engagement

Discusses ways to identify, manage and communicate with stakeholders, according to level of influence and support.

**Phase four - Implementation** 

Outlines issues to consider when commencing implementation

Phase five - Evaluation and maintenance

Provides guidance for evaluation of implementation

**Diagram 2** The range of costs that arise from HAI. Adapted with permission from Graves et al (2008).





#### Helpful hint: Read through the OSSIE toolkit before reading this guidebook!

You should read through the entire OSSIE toolkit at least once before studying this guidebook and starting your implementation work – then you can get together with colleagues and talk about which aspects might be most useful to your specific practice setting. The OSSIE framework offers readers a means to organise an implementation plan, but it will be more useful if all information and phases of OSSIE are considered collectively, rather than as a step by step or staged approach.

#### iii. The business case for infection prevention and control in primary care

The AICG outline the requirements for effective infection prevention. The ethical imperative for reducing HAI is obvious – the need to reduce patient morbidity and mortality associated with health care (Dunagan et al, 2002). However, resources in primary care settings are often limited, and priorities for these resources are many. Investing time, money and human resources into implementing the AICG may present many challenges. While the costs of infections can be easy to identify, the cost reduction benefits of infection control will not always be immediate and obvious (Dunagan et al, 2002).

Following are some of the reasons to support why primary care facilities should allocate resources to implementing the AICG:

- Infection prevention is a patient safety issue – primary care can be the first (and sometimes only) point of health care for some patients, and provides a continuum of care for patients not in acute facilities.
- HAI cause pain and suffering to patients and their families/carers.
- HAI are associated with significant resource costs – they prolong treatment and create increased work load for healthcare staff.
- HAI are also a staff safety issue – staff injuries from occupational exposures increase sick leave, costs associated with compensation, and reduce workforce availability.

In addition to the ethical implications outlined above, there are potential benefits not only for patients but for staff and the facility/practice overall (adapted from Dunagan et al, 2002):

- Meeting accreditation standards
   and requirements
- Reducing waste and associated costs through
  - Wise product selection

#### Did you know? Antibiotic resistance...

- Multi-resistant bacteria are causing increasing human morbidity. There is concern that past excessive antibiotic use in the community is partly responsible.
- In Australia there was a significant decline in antibiotic prescribing between 1999 and 2004 which resulted in part due to National Prescribing Service (NPS) targeting of antibiotic prescribing (NAUSP 2008) – but this has not been sustained.
- Antibiotic resistance has been increasing at the same time as pharmaceutical companies have decreased their research and development of new treatments. While some small gains are being made to increase the supply of new antimicrobials, it is unlikely that new antimicrobials will be on the market within the next ten years.
  - Appropriate use of expensive technology
  - Sensible policies and procedures
- **Protecting employees** from injury, and reducing costs associated with such injuries

- Enhancing the image of the facility/team for potential patients and staff recruitment
- Improving patient and carer
   engagement
- Increasing staff engagement through staff receiving feedback on positive patient outcomes, reduced incidence of occupational exposures and sick leave due to infection transmission amongst staff, and staff having a sense that they are directly responsible for having achieved an improvement in patient care
- Improving teamwork as all members of the team work together on finding creative and effective ways to improve infection control practice. Teamwork has been shown to improve patient outcomes and staff satisfaction in primary care settings (Borrill et al, 2001).

However, such outcomes are not likely to be seen in the short term. Resources need to be allocated, and a plan developed to support implementation and monitoring of progress, to enable successes and benefits associated with improvements in infection control practice to be identified. The guidebook supplements the information in the OSSIE toolkit to provide examples of processes that can be used in primary care to monitor infection prevention and control practices and take action for improvement. These processes should ultimately be built into the routine work and culture of the practice. Short term successes have the potential to provide significant long term benefits to patients, staff, the facility/practice and the community as a whole. They also demonstrate to patients the commitment of the facility/practice to their safety.

#### How to: Prepare a business case

Use or adapt the business case template provided at the end of the introductory chapter in the OSSIE toolkit to help prepare a business case for infection prevention and control in your facility/practice.

## i.v The importance of leadership

The significance of leadership in providing the vision for patient safety, and the structure and support mechanisms for implementation, cannot be overstated. There is much that the practice or facility leaders can do to enable sustainable improvement in infection prevention and control.

Use the checklist on the following page (page 10) as a starting point for leading improvement in infection prevention and control.

#### Notes

| Checklist for facility/practice leaders  | YES/<br>NO |
|--|------------|
| Endorse the inclusion of specific roles and responsibilities for relevant staff  |            |
| Ensure policies are reviewed and updated to reflect guideline recommendations; build in systems for review, audit, monitoring  |            |
| Develop a communication plan to ensure all staff know about the AICG   |            |
| Establish reporting systems for infection control – have infection rates reported at meetings as a single agenda item  |            |
| Identify leaders from the facility/practice to "champion" a culture of safe practice through infection reduction   |            |
| Develop systems to recognise good practice in IP&C   |            |
| Ask patients for feedback about their observations and health care experience, with a specific emphasis on infection control practice and culture  |            |
| Develop processes for individual clinicians and staff to receive feedback on infection control data/measures relevant to their practice  |            |
| Deal directly with staff who consistently do not comply with recommended practice  |            |
| Enable staff to attend education programs – include new and substantive staff members at all levels of the practice. Ensure education provided is appropriate to their role                              |            |
| Promote reporting about IP&C as part of accepted culture for incident management – help staff to see that infection near misses and incidents can be prevented and are not a routine part of health care |            |
| Celebrate success  |            |

#### Phase one

## = Organisational leadership

#### This phase is about:

- resources required for implementation
- · leading implementation
- assessing current infection control practices against the guidelines
- identifying local barriers and enablers to implementing the guidelines
- assessing readiness for change.

#### Link to the AICG

The AICG offer some specific advice to facilities about risk management basics in Part A.

Specific guidance on providing patient centred care is highlighted throughout the AICG.

#### 1.1 Determine resources

- The organisational leadership phase of OSSIE requires that there be an equal focus on demonstrating clear leadership, as well as to appropriate resource allocation.
- The AICG very clearly emphasise that addressing infection prevention and control requires a facility wide program and is everybody's responsibility.
- If you are a leader of a facility/ practice, think carefully about what resources will be allocated to implementation, and be clear to all involved in implementation about the resources that will be provided from the start.
- Remember that resources fall into the category of human (workforce), fiscal and physical requirements – and each impact on the other.
- Time will be one of the most significant resources required. If appropriate human and fiscal resources are not allocated to implementation, then the time needed for the implementation project will be longer.

#### How to:

## Determine resources needed

Use the resources worksheet at the end of the organisational leadership chapter in the OSSIE toolkit.

#### Success factors in primary care

Client safety is paramount, however knowing that you can demonstrate to your clients that you have followed the best available evidence and implemented the recommended practices into your clinical environment, and letting clients know that this is part of a bigger commitment to safety and ongoing quality improvement, can be so professionally rewarding and lead to higher client satisfaction.

> Julianne Badenoch President APNA 2010-2011

#### 1.2 Who will lead implementation – a team or individual?

- Where appropriate, a team should be established to implement the AICG. However, the size of the practice may mean implementation of the guidelines will be coordinated by one key person, clinical lead or champion.
- Regardless of whether it is a team or just one person, leading implementation will involve:
  - identifying, consulting, and engaging key stakeholders
  - assessing the context for change – readiness, barriers and enablers, and current infection control practice to identify priority areas for implementation

If there is the potential to use a team approach consider who might be on your team:

- a member of the leadership/ management
- clinicians
- administrative staff
- patients/carers

Consider seeking expert advice from:

- the infection control nurse practitioner/professional (ICP) at the local hospital or area health service,
- local professional groups or networks – for example the local Division of General Practice

Ask if there are ways that others could be consulted or involved, for example:

- contractors who provide services to the practice/facility – such as cleaning contractors etc
- visiting professionals who may use rooms for consultation
  - working with colleagues and patients/carers to implement the AICG
  - working with colleagues and patients/carers to monitor progress
  - keeping the facility/practice updated on issues in relation to infection control practice.

#### How to: Enhance teamwork

if a team approach is used, use the tools and techniques to assist teams in their work together that are included at the end of phase one – organisational leadership in the OSSIE toolkit.

## **1.3 Applying the guidelines to the local context**

- The AICG provide the basis for healthcare workers and healthcare facilities to develop detailed protocols and processes for infection control that apply to their specific situation.
- In addition to review of policies and procedures, applying the guidelines locally might include a review of signage, education and patient information.
- When looking at how the AICG can be applied to the local context and developing local policy, each facility/ practice should also conduct its own risk assessment in collaboration with key stakeholders, to identify priority areas for implementation. For example, are there aspects of treatment provided that are more high risk that others in terms of potential infection transmission? This may be a priority area for policy adaptation and implementation.

#### How to: Learn more about risk assessment

Read part A of the AICG, which offers some specific advice to facilities about risk management basics.

## 1.4 Assess the practice context

## 1.4.1 Assess current practice against the guidelines

- The aim of assessing practice is to learn about the way infection prevention and control works within the facility/practice and identify areas that need to be improved or changed.
- This can also be described as a gap analysis – where an analysis of the current status is taken, the desired future is described using the guidelines, a statement describing the gap characteristics between present and future is developed and then work is undertaken to determine actions needed to close the gap (Soule, 2002).

## **1.4.2 Identify barriers and facilitators**

 Barriers to implementation can exist at a number of levels – the innovation itself (accessibility of the guideline), the individual (negative beliefs about change) the organisation/facility (absence of



#### How to:

Assess current practice against the guidelines

Link: To access a baseline assessment checklist to identify where there are gaps in current practice in relation to the key guideline recommendations go to www.safetyandquality.gov.au/ internet/safety/publishing.nsf/ Content/PriorityProgram-03\_ ImpGuides-TaR

Look at the suggested focus group questions in phase one of the OSSIE toolkit to see if they can be adapted for your workplace.

adequate resources & workforce & champion even), and the broader environment (lack of professional organisation support).

• For a large facility/practice, the team may consider using some of the tools/processes suggested in the NICS barriers guide titled *Identifying barriers to evidence uptake* (National Institute for Clinical Studies, 2006)

Case study Barriers in general practice

A brainstorming meeting of experienced Practice Nurses and Infection Prevention and Control Professionals identified the following potential barriers to implementation of the guidelines in general practice settings:

- <u>Attitudes</u> concerns about the evidence base for the guidelines, is and applicability to primary care settings
- <u>Resources</u> time, cost
- Workforce shortages, multidisciplinary (no one method will work for all).

## Suggestions to try and overcome these barriers included:

Attitudes – provide information about the evidence supporting the key guideline recommendations; find opinion leaders locally who are supportive of infection prevention and control and use them; provide feedback of assessment/audit results; ask staff to choose one of the areas identified in the audit results to target; ask staff, what will it take for you to try this – this could be promoted as a 'What's in it for me?' idea

**Resource issues** – build a business case outlining the benefits to the practice of improving infection prevention and control processes and practice (benefits could include accreditation standards, practice reputation, and staff recruitment and retention); demonstrate cost savings that could also result from review of equipment, procedures and practices.

**Workforce issues** – ask different groups of staff what they see as important and what their role could be to encourage ownership; focus on one key target area at a time; use regular reminders in various formats; identify ways to make the focus activity part of work practices not an additional task.  For a smaller facility/practice, it may be simply a process of asking yourself, the team, and identified stakeholders –

#### What might make it difficult to implement the guideline recommendations in this setting?

What might help us to implement the guideline recommendations in this setting?

#### How to:

Assess barriers in your facility/practice

**Link:** To access tools and resources to assist identifying barriers go to

#### www.implementationcentral.com.au

Identifying barriers to evidence uptake" National Institute for Clinical Studies (2006)

www.nhmrc.gov.au/nics/material\_ resources/resources/identifying\_ barriers.htm

#### How to:

Assess readiness for change in your facility/ practice

Use the template for assessing environmental readiness for change that is included in phase one of the OSSIE toolkit.

## 1.4.3. Assess environmental readiness

- A context that is receptive to change will have certain components that include strong leadership, clear vision, good management relations, and effective data capture systems (Greenhalgh et al 2004). These same components will increase the likelihood that implementation efforts will be successful and sustained.
- It can be worthwhile undertaking an assessment of environmental readiness in the facility/practice to identify what exists to support implementation, and to help you to target areas that need attention, so these do not become problematic later on. For example, if a readiness assessment demonstrated that there were no clear systems for capturing data, work could be undertaken to identify ways that this could be overcome.

#### Phase two

## S = Solutions and strategies for implementation

#### This phase of OSSIE is about:

- setting specific project goals and aims using The Model for Improvement
- choosing implementation strategies and solutions for improving infection control practice.

#### ACTION PLAN So far you have...

- Identified a leader or project team
- Assessed gaps, barriers, enablers and organisational readiness



## 2.1 Setting goals using the Model for Improvement in primary care

The Model for Improvement (see diagram) can help teams to develop targeted solutions in keeping with aims.

Model for improvement

What are we trying to accomplish? What change can we make that will result in improvement?

How will we know that a change is an improvement?

#### The Model for Improvement adapted from: www.ihi.org/IHI/Topics/Improvement/ ImprovementMethods/HowToImprove

The Model for Improvement begins by asking three key questions about the work to be undertaken, and then implementing "trial and learning" cycles to test the ideas and solutions implemented.

## 2.1.1 Question one – What do we want to achieve?

The case study below illustrates how the Model for Improvement could be used for implementation in primary care.

#### **Clean Town medical centre**

- A large medical centre in Clean Town providing medical (general practice) service, physiotherapy, dental, pharmacy services, travel health and childhood immunisation
- There has been one major incident of inappropriate and inadequate reprocessing of contaminated instruments this year
- Staff routinely perform high-risk respiratory procedures such as nebulised treatments to respiratory patients
- Current staff influenza vaccination rates are 40%
- At least three incidents of staff sustaining needle stick injury have been reported in the centre in the past six months
- All of these have been associated with overfilled sharps bins

In this case, the staff of Clean Town discuss the issues identified and decide that they are going to try to achieve the following:

 Mitigate risk of transmission of blood borne diseases to patients and staff through improved reprocessing of contaminated reusable equipment

- Reduce accidental exposure to contaminated sharps
- Increase and maximise uptake of annual influenza vaccine
- Introduce valid and reliable systems to monitor:
  - Reprocessing parameters
  - Occupational needle stick injuries
  - · Vaccination among staff

When writing objectives it is important that they are SMART – to keep everyone focussed on the specific targets for improvement.

| <u>S</u> pecific   |  |
|--------------------|--|
| <u>M</u> easurable |  |
| <u>A</u> chievable |  |
| Results oriented   |  |
| Time limited       |  |

An example of one SMART objective for Clean Town could be:

#### Within six months the incidence of overfilled sharps containers/ containers with protruding sharp objects, will be zero.

The objective meets the SMART criteria by stating exactly WHAT will be changed/improved (overfilled sharps containers), HOW the outcome will be measured (filling of containers), WHAT result is expected (zero) and is time limited (6 months).

#### 2.1.2 Question two – What change can we make that will result in improvement?

The baseline assessment work undertaken earlier will have enabled target areas to be identified. There may be a number of changes that can be initiated immediately, while others will require more detailed planning, as discussed previously. The box below provides a summary of ideas for Clean Town to achieve its goal:

#### Interventions

- Add infection prevention and control to practice agenda meetings – clinical lead to discuss and provide updates and feedback regarding achievement of the specific objective
- Introduce a mechanism for daily checking and replacement of full sharps containers
- Place sharps containers in all areas where sharps are used, for example in all consulting and treatment rooms, ensuring that containers conform to AS 4031 or AS/NZ 4261 and are easily accessible, sturdy and out of reach of children
- Provide education to staff regarding safe use, handling and disposal of sharps as well as mechanisms for reporting and managing an occupational needle stick injury
- Perform weekly audits of all sharps containers to assess compliance with recommended practices

## 2.1.3 Question three – How will we know a change is an improvement?

Progress of the implementation strategy will need to be measured. The measures chosen should reflect the specific issues that have been identified as requiring improvement. An example of measures for Clean Town is provided below; **however evaluation and measurement are discussed in phase five – evaluation and maintenance**.

#### Measures – Clean Town

- Needlestick injuries due to overfilling of sharps containers
- Needlestick injuries from any cause
- Staff interviews on perception of safe practice in relation to sharps management
- % staff educated in sharps management
- · Weekly audit sharps containers

#### 2.2 Plan – Do – Study – Act

PDSA cycles are used to plan and implement the proposed changes, monitor the response to the interventions and review and act on results. Depending on the specific circumstances there may be one or more PDSA cycle. The examples for Clean Town show how PDSA cycles can work:

'Plan – Do – undertake a 4 week trial

**Study** – compare baseline and progress measures after trial period

Act – positive results – move to next issue; no change or negative results – consider why, ask team, consider monitoring for longer, and plan again!

#### How to:

Learn more about the Model for Improvement

Link: To access more resources on this topic go to NSW Health Department (2002) Easy Guide to Clinical Practice Improvement (2nd edition) go to www.health.nsw.gov.au

Victorian Quality Council Australia, Feb 2006. Successfully implementing change. Available

from www.health.vic.gov.au/ qualitycouncil/downloads/ successfully\_implementing\_ change.pdf

#### Helpful hint: Target areas for improvement

It can be useful to identify a specific target area for improvement, rather than implementing all recommendations at the one time. You may want to begin with those easiest to implement, or those where there are significant gaps between current and recommended practice.

## 2.3 Choose solutions and strategies for implementation

- While evidence for successful implementation of guidelines varies, there are some lessons that can be learned from the literature and from programs where change has been achieved:
  - Simple dissemination of guidelines alone is not sufficient to change practice
  - Leadership and appropriate allocation of resources is essential
  - An assessment of the local context in terms of barriers and facilitators should occur
  - Applying a theoretical framework of change to implementation may assist (Moulding et al, 1999, Grol and Wensig 2004, Carey et al 2009)

- Stakeholders (including patients, carers and consumers) should be part of the process of choosing implementation strategies
- Some strategies appear to be more successful than others, such as the use of opinion leaders (Doumit et al, 2007), multipronged approaches (Medves et al, 2009), and using strategies tailored to address identified barriers may enhance implementation
- Implementation strategies should focus on building local consensus, ownership and on the local context
- Change strategies should be built into existing systems wherever possible
- Consideration should be given to strategies for sustainability as part of the implementation plan.
- Certain implementation strategies may be more suitable for some contexts than others. For example, while educational outreach visits have been shown to be successful in changing prescribing behaviours, the changes in other areas are varied (O'Brien et al, 2007). Similarly, in hand hygiene programs, and in antibiotic stewardship, audit and feedback have been shown to be particularly effective in changing clinician

behaviour (Lesprit & Brun Brusson, 2008; Carey et al, 2009).

- Much of the research concerning the effectiveness of implementation strategies has been undertaken with clinicians in medical practice (RNAO, 2002). Implementation strategies that have been shown to work in medicine may not be as effective with other health professionals, including nurses and allied health professionals, dental practitioners, or administrative staff members.
- Individual practices/facilities will need to undertake their own research to identify resources and tools to support implementation of the guidelines in their facility, and choose which will be most appropriate to their specific context.

## 2.4 Deciding on solutions and strategies – which ones?

- Use the information from the baseline assessment checklist to work out which existing tools within your facility/practice are suitable for implementation, or need only minor adaptation to reflect the AICG recommendations.
- Contact infection control professionals within the state or jurisdiction or at the local health service to ask about tools to support implementation. For example public health units or the private health branch of the state

#### Did you know? Educational resources

The ACSQHC has initiated the development of several educational resources for Health Care Workers who undertake infection prevention as a key part of their role, in both acute and primary care settings, in private or public practice. These resources include interactive online modules to facilitate learning for all practitioners, regardless of geographical location in Australia. The content has been developed by experienced Infection Control Practitioners/ Professionals (ICPs) from all states and jurisdictions. They are harmonious with the AICG, risk management focused, and provide information to support the diversity of health care services. The modules can be accessed via the ACSQHC HAI program webpage www.safetyandguality. gov.au/internet/safety/publishing. nsf/Content/PriorityProgram-03 ImpGuides-TaR3

health department may be able to provide information and resources.

- Brainstorm potential solutions and strategies with staff and stakeholders.
- Review the list of simple solutions in table 2.1 and think about which would be suitable to your practice.

#### Table 2.1 – Simple solutions for implementation in primary care

- "Champion" a culture of safe practice through infection reduction
  - Help staff to see that near misses and incidents related to IP&C can be prevented and are not a routine part of health care
  - Encourage staff and make it safe for all staff to raise and discuss issues about IP&C in the department
- Include specific roles and responsibilities in performance descriptions for IP&C for staff
- Ensure policies are reviewed and updated to reflect guideline recommendations; build in systems for review, audit, monitoring
- · Develop a communication plan to ensure all staff know about the AICG
- Include infection prevention and control (IP&C) as a single agenda item on practice meeting agendas and include discussion on the following in relation to IP&C:
  - · incidents and near misses
  - public health advice
  - new guidance
  - new products
  - new standards (governance)
  - professional development and learning opportunities
  - patient feedback
- Ask patients for feedback about their observations and experience, with a specific emphasis on infection control practice and culture
- Deal directly with staff who consistently do not comply with recommended practice
- Ensure education is in place to address learning needs of new and substantive staff members
- Publish results of audits and other relevant data on a frequent and regular basis in the staff meeting room, or via internal email or newsletter
- Celebrate successes in IP&C (eg no staff exposures, no patient complaints this month)
- Engage local opinion leaders to provide support to the practice eg ICP at local hospital, other practices in local area, local GP Divisions

A suggested approach to deciding the final solutions and strategies that will be used is outlined below (adapted from Bens, 2006):

| Major impact | <b>EASY/MAJOR</b><br>Discuss at monthly meeting<br>Display weekly progress on<br>staff tearoom noticeboard<br>Place reminder notes –<br>CAREFUL WITH SHARPS<br>on all patient notes before<br>consultations | DIFFICULT /MAJOR<br>Enlist opinion leaders to talk<br>to colleagues about infection<br>control practice<br>Empower clinical staff to<br>stop procedures if infection<br>control recommendations not<br>followed<br>Encourage patients to challenge<br>practice if they feel unsure |
|--------------|---|--|
| Minor impact | EASY/MINOR<br>Write note in<br>communication book   | DIFFICULT/MINOR  |
|              | Little effort   | Major effort   |

## 2.4.1 Choosing solutions using ease of impact decision grid

- · Give priority to:
  - activities that address risks that are high/have a potentially catastrophic outcome.
  - · ideas that are easy to implement.
- Make an action plan for:
  - more difficult ideas likely to have a major impact.
- Give consideration to:
  - cost-benefit analysis the chosen tool may be high cost initially, but may have a far

reaching benefit patients to in terms of outcome.

#### · Leave until last:

 difficult solutions that will require major effort but are expected to have only minor impact – are the ones that can be left until last, or discarded.

#### Keep a record of:

 all of the potential tools and solutions identified – there may an opportunity to reconsider their value and potential impact as the implementation work progresses.

#### Did you know? Hand Hygiene Australia

Hand Hygiene has been identified as a high priority for the prevention of healthcare associated infection worldwide as hand hygiene is the **single most effective intervention for preventing healthcare associated infections**. The ACSQHC has engaged Hand Hygiene Australia (HHA) to implement the National Hand Hygiene Initiative (NHHI) – a national hand hygiene culture-change program that will standardise hand hygiene practice and placement of alcohol-based hand rub in every Australian hospital, public or private, in every state and jurisdiction. This initiative is based on the World Health Organisation (WHO) – World Alliance for Patient Safety campaign "Save Lives: Clean Your Hands". Five Moments for Hand Hygiene have been identified as the critical times when Hand Hygiene should be performed (see diagram on page 26). While initially focusing on hospitals, the 5 moments are equally applicable to all health care workers and practice. For more information and to access resources go to: www.hha.org.au

#### Notes

# **5 Moments for HAND HYGIENE**



| 1 BEFORE TOUCHING<br>A PATIENT                        | WHEN: Clean your hands before touching a patient and their immediate surroundings<br>WHYP: To protect the patient against acquiring harmful germs from the hands of the HCW.  |
|---|---|
| 2 BEFORE A<br>PROCEDURE                               | WHEN: Clean your hands immediately before a procedure<br>WHY7: To protect the patient from harmful germs (including their own) from entering their<br>body during a procedure.  |
| 3 AFTER A PROCEDURE<br>OR BODY FLUID<br>EXPOSURE RISK | WHEN: Clean your hands immediately after a procedure or body fluid exposure risk<br>WHYT. To protect the HCW and the headlacare surroundings from harmful patient germs   |
| 4 AFTER TOUCHING                                      | WHEN: Clean your hands after touching a patient and their immediate surroundings<br>WHY 7: To protect the NCW and the health care surroundings from harmful patient germs   |
| 5 AFTER TOUCHING A<br>PATIENT'S<br>SURROUNDINGS       | WILEN: Clean your hands after touching any objects in a patient's immediate surroundings<br>when the patient has not been touched<br>WHY?. To protect the HCW and the health care surroundings from harmful patient germs |





Based on the 'My 5 moments for Hand Hygiene, www.who.int/gpsc/5may/background/5moments/en/ index.html World Health Organization 2009.

#### Phase three

## S = Stakeholder engagement

#### Phase three is about:

- · identifying stakeholders
- developing a communication plan for all stakeholders
- maintaining stakeholder involvement.

#### ACTION PLAN So far you have...

- Identified a leader or project team
- Assessed gaps, barriers, enablers and organisational readiness
- Chosen solutions and strategies for implementation

## Link to the AICG – key messages

- Health care associated infection is preventable
- No consumer of healthcare in Australia should acquire a preventable healthcare associated infection
- Infection Control is everybody's business
- Infection Control is integral to clinical care and the way in which it is provided - it is not an additional set of practices
- Involving patients is essential to successful infection prevention and control
- Adopting a risk management framework to infection control at all levels of the organisation or facility is necessary

## 3.1 Identifying stakeholders in primary care

- Successful stakeholder engagement is absolutely essential to the success of a project.
- Stakeholders are individuals or groups who are interested in or who may be affected either directly or indirectly by an issue – in this case change and improvement in infection control practice.
- The range of people influenced may be much broader than initially realised (NHMRC, 2000).
  - Pid you know? Who are stakeholders in primary care?
  - Patients/carers/consumers
  - Professionals from local health care facilities both primary & tertiary – for example the ICP and specialist clinicians
  - Colleagues within local professional groups, such as the Divisions of General Practice or professional networks or interest groups
  - Colleagues from "like" practices and local health care providers

     for example allied health, optometrists, podiatrists, dentists, and pharmacists
  - Contractors cleaners, locum staff
  - Referral points to other health care providers



Helpful hint: Engaging patients, families and carers

- Have a patient /carer representative on an implementation working group
- Display a sign we are committed to excellence in infection prevention – tell us how we can do it better
- Provide an improving infection prevention suggestion box
- Supply pamphlets and newsletters that say – ask us to wash our hands
- Provide patient/carer education about their role in infection prevention and control

## 3.2 Communicating with stakeholders

- Stakeholders should be asked their preferred means of communication, as the same strategy will not be suitable for all groups (NHMRC, 2000).
- Needs will be different depending on their level of influence and support for the project.
- Regardless of the method provide regular updates regarding progress, especially during the early phases.
- Using a variety of methods to communicate is a good way to provide important information

#### How to: Identify stakeholders

A worksheet for identifying stakeholders and their needs is included in phase three of the OSSIE toolkit.

that is to the point but at the same time reminds all where implementation is up to. It also ensures that everyone gets to read the information. For example, **a weekly email** could read – *this week we are focussing on hand washing audits*, **written flyers** could deliver the same message but with dot points about *what is being looked for in the audit*.

- Give consideration to developing a brand or logo that can be associated with the guidelines. For example choose one colour of paper for printing all communication about the guidelines, or involve the staff in the facility/practice in designing a poster to represent the implementation project.
- Ensure patients and carers are kept informed. Use the tools and strategies identified during the simple solutions phase, and remember to keep checking the NHMRC website for new resources that will become available, including signage and patient information leaflets.

- Keep the focus on spreading the key messages about the AICG.
- Make certain the aim of implementation is clear – for example a message about being committed to excellence in infection prevention.
- Ask people identified as opinion leaders/champions – in what ways can we support you so that you can support the project? They may be unsure about their role as opinion leader – be clear about what is being asked, and provide support.

#### Helpful hint: Create a community of practice

Who are your allies? Who can provide support, and who can you support in return? Consider linking with these allies to create an infection prevention and control "community of practice". A community of practice is a voluntary network of people who share information, build on existing knowledge, develop expertise and solve problems for a common purpose driven by the interest of the community involved. Community of practice models in sectors other than health, have enabled rapid spread of knowledge and innovation (Buchan and Baggoley, 2004). Build a network with other like practices, or for general practice, with the local Division of General Practice.

The table below provides ideas for maintaining stakeholder engagement through the phases of OSSIE.

## Table 3.1: Ideas for building and maintaining stakeholder engagement in primary care\*

| Phase and objectives  | Potential strategies  |  |  |
|---|---|--|--|
| Organisational leadership   |   |  |  |
| <ul> <li>Project briefing and initial engagement</li> <li>To</li> <li>generate momentum for change,<br/>a shared commitment</li> <li>ensure a clear understanding of<br/>implementation – scope, aims and likely<br/>outcomes/benefits (see business case)</li> <li>discuss roles and responsibilities</li> <li>obtain feedback and comments in order to<br/>identify potential and actual barriers and<br/>issues early</li> </ul> | <ul> <li>Meet with staff and patients/carers</li> <li>Provide a summary about the key<br/>recommendations in electronic or printed<br/>format and available upon request</li> <li>Provide evidence to support the key<br/>recommendations</li> <li>Give feedback about baseline assessment<br/>checklist results</li> <li>Have an afternoon tea to get staff<br/>feedback about their views on current<br/>infection control practice</li> <li>Make a clear statement of what the<br/>implementation is 'not about'</li> <li>Begin to display awareness raising material<br/>eg Infection Control is everyone's business,<br/>signage, patient education materials</li> </ul> |  |  |
| Phase and objectives  | Potential strategies  |  |  |
| Simple solutions and strategies for implement   | itation   |  |  |
| Active involvement and engagement<br>To<br>• utilise available expertise<br>• involve stakeholders in identifying solutions   | <ul> <li>Brainstorm ideas for improving practice with<br/>all staff – provide incentives for feedback</li> <li>Arrange a dedicated time for staff to meet to<br/>discuss implementation</li> <li>Provision of incentives for feedback</li> </ul>  |  |  |
| Implementation  |   |  |  |
| <ul> <li>Maintenance of engagement</li> <li>To</li> <li>maintain enthusiasm and commitment</li> <li>encourage active participation</li> <li>promote dissemination of outcomes and successes</li> <li>acknowledge participation and commitment</li> </ul>  | <ul> <li>Provide regular updates and feedback of<br/>audit data through printed or electronic media<br/>such as newsletters, pamphlets, intranet</li> <li>Give brief face-to-face updates during<br/>regular scheduled meetings</li> <li>Try innovative ideas such as a weekly<br/>quiz game</li> <li>Give a presentation and invite guests from<br/>local health care practices</li> <li>Have formal celebrations of good practice<br/>and progress</li> </ul>   |  |  |

\*adapted from OSSIE guide to clinical handover improvement (ACSQHC, 2010).

#### Phase four

## = Implementation

#### This phase is about:

- developing a detailed action plan to guide implementation
- ensuring the action plan includes details of communication strategies and risk to the project
- using PDSA cycles to pilot the action plan.

### ð

#### Link to the AICG

Part C of the AICG outlines responsibilities of managers in health care facilities, including governance structures that support the implementation, monitoring and reporting of effective work practices. Consideration should be given to the issues raised in that section of the AICG, and the implications for implementation in the local setting.

#### ACTION PLAN

#### So far you have ...

- Identified a leader or project team
- Assessed gaps, barriers, enablers and organisational readiness
- Chosen solutions and strategies for implementation
- Identified and engaged stakeholders, and developed a plan for communicating with different stakeholders

## 4.1 Developing an implementation action plan

- Implementation can be resource intensive and time consuming.
- Having an implementation action plan that provides the details of how the guidelines will be implemented will help the facility/ practice to stay on track and ensure that none of the target areas for implementation is overlooked.
- A well planned approach to implementation will incorporate strategies that strengthen the workplace environment and motivate and empower staff and patients to engage in infection prevention and control and improve practice if required.
- · The action plan describes
  - *who* will be responsible for what actions
  - *when* each of the actions will be put into place
  - resources required
  - *what measures* will be used to monitor progress.
- Ideally as many staff as possible should share in responsibility for implementing each of the actions, and monitoring and evaluating each step of the plan.

- It is important that regular communication and feedback are maintained to encourage continued commitment and enthusiasm for the project. This includes communication to patients and carers. Information about communication strategies should be included in the plan.
- Potential risks to the implementation plan should be identified and strategies to deal with these listed.
- Include details about how progress and outcomes will be measured (see phase five – evaluation and maintenance).
- Consider governance arrangements and whether there is a need for executive sign off within the facility/practice – for example from facility management, or area/ district health executive if the facility/practice is part of a broader health service.
- John Kotter's 8 steps for leading change in organisations provides a useful way to approach implementation, and takes into account factors such as individual motivation, the context, and the need for leadership and clear vision. The steps and examples of how Kotter's framework might be applied are listed in Table 4.1.

#### Table 4.1 – Kotter's 8 steps for leading change (Kotter 1995)

John Kotter's 8 steps for leading change in organisations provides a useful way for project teams to think about how they will use the chosen solutions and strategies to approach implementation, and takes into account factors such as individual motivation, the context, and the need for leadership and clear vision. Examples of how this framework might be applied in primary care are listed here.

#### 1. Create a sense of urgency

Provide posters and education about the scope of the problem of HAI, with reference to the local context; use patient stories.

#### 2. Form a powerful guiding coalition

Identify a leader or project team, ensure there is representation from those in the facility/practice that will be able to make change.

#### 3. Create the vision for change

What will this facility/practice look like when infections are reduced; consider setting excellence as a target – 100% compliance with the key guideline recommendations.

#### 4. Communicate the vision

Communicate to all the aims of implementing the guidelines – use multiple methods of communication.

#### 5. Remove obstacles

Make it easy for people to do their work – place resources at the point of care, consider the development of audit charts and tools that make it easy to document.

#### 6. Create short term wins

Begin with a pilot, share with all the facility/practice the successes as they become apparent, even if only small improvements to begin with – e.g. no needlestick injuries for one month, increasing hand washing compliance etc; look for side effects of the program – for example improved teamwork.

#### 7. Build on the change

Work on one key area, then move to others; maintain feedback system.

#### 8. Anchor the change in culture

Ensure policies reflect new practices, build regular updates into routine meetings and forums, encourage staff to think about new ideas.

#### Helpful hint:

We asked experienced ICPs and practice nurses what they would do if they were trying to implement the AICG in their own primary care practice/facility. *Here is what they said...* 

- Read the key recommendations
- Conduct a baseline assessment
   of current practice
- · Educate staff
- · Discuss at meetings
- Collaborate with other like
   practices create a special
   interest group
- Choose a different target area each month
- Put reminder stickers on the front of patient notes
- Place ABHR at the point of care
- Practice hand hygiene according to the 5 moments

- Replace linen with paper towel
- Educate carers about their role in infection control
- Get vaccinated and maintain good staff vaccination records
- Encourage good vaccination campaigns for carers – planned and opportunistically
- Review contracts and contractors
- Look at traffic flows in the facility/practice – access and waiting areas
- Target cleaning
- Review chemicals antiseptics, disinfectants, cleaning agents
- 4.2 Piloting interventions using PDSA cycles
- Consideration should be given to piloting new processes and revising implementation as new learning becomes apparent as a result of the pilot.
- Issues to think about when piloting a new intervention include:
  - choice of clinical area if this is a large facility/practice
  - engagement of staff are there areas in the facility/practice

where staff are more likely to embrace the opportunity for improvement and adopt new processes more easily? It may be worthwhile starting in areas where success may be more likely, to demonstrate early improvements or "quick wins"

 all patients and processes, or specific ones –will specific groups of patients be included (for example those with a known infection or all patients)?
 Will specific processes be focussed on?  meaningful evaluation – what data will be needed to really know the interventions are making a difference (see also phase five – evaluation and maintenance).

How to: Develop an action plan

Link: To download an implementation action plan template go to www.safetyandquality.gov. au/internet/safety/publishing.nsf/ Content/PriorityProgram-03\_ ImpGuides-TaR

#### Notes



#### Example – Clean town medical centre

### What do we want to change? (SMART objectives)

- There will be no further incidents of inappropriate and inadequate reprocessing of contaminated instruments over the next twelve months
- By the end of autumn 100% of staff will be educated about and offered influenza vaccination
- By the end of the influenza season 75% of staff will have received influenza vaccination
- By the end of the influenza season the reason for each refusal of influenza vaccination by staff will be documented in 100% of circumstances
- There will be no further needle stick injuries related to overfilled sharps bins over the next twelve months
- Within six months the incidence of overfilled sharps containers will be zero, and this will be sustained over 12 months

### What change can we make that will result in an improvement?

Make safety through infection prevention and control a priority

- Discuss issues at facility/practice meeting
- Identify a team or individual to be infection prevention and control leader for the practice
- Undertake a risk assessment to identify priority/target areas for improvement

- Provide feedback to all staff about results of risk assessment
- Display a sign indicating practice's commitment to excellence in infection prevention and control and including examples of how that is identifiable

"We encourage our clients to ask questions about our infection prevention and control practices, and to tell us how we can do better"

*"Please ask us if we have washed our hands"* 

"Ask us about your role in preventing the spread of infection"

- Add infection prevention and control to facility/practice agenda meetings

   clinical lead to discuss and provide updates and feedback regarding achievement of the specific smart objectives
- Develop a hand hygiene program: posters, place Alcohol Based Hand Rub (ABHR) in clinic/consultation rooms, waiting room and bathrooms, actively encourage patients and carers to perform hand hygiene, develop a hand hygiene audit program
- Place a suggestion box in discrete place with sign encouraging patients/ carers and staff to give feedback about infection control practice
- Provide pamphlets, brochures, and posters in the waiting area to educate patients/carers about their role in infection prevention and control

#### Vaccination

- Display posters promoting influenza vaccine and other health promotion initiatives
- Brainstorm with staff reasons why vaccination may be low and develop strategies to address identified issues
- Provide education to staff about immunisation, including information on benefits, risks and myths, and how and when to access vaccinations
- Offer accessible vaccination times and incentives for vaccination – for example hold vaccination evenings with supper, provide free coffee vouchers
- Develop a risk management strategy for managing staff who are not vaccinated for influenza

#### Sharps

- Risk assessment of current sharps disposal practices and available equipment for injection and venepuncture
- Review the placement, type and suitability of all of sharps containers in the practice
- Place sharps containers in all areas where sharps are used, for example in all consulting and treatment rooms, ensuring that containers conform to AS 4031 and AS/NZ 4261 and are easily accessible, sturdy and out of reach of children
- Provide education to staff regarding safe use, handling and disposal of sharps as well as mechanisms for reporting and managing an occupational needle stick injury

- Introduce a mechanism for daily checking and replacement of full sharps containers
- Develop a checklist for consultation/ clinic room preparation to include sharps and other infection control supplies to ensure availability and readiness for use in line with recommendations
- Engage staff to perform weekly audits of all sharps containers to assess compliance with recommended practices – discuss results at practice meeting, display audit and results, email weekly audit results to all staff
- Place reminder notices in the clinic/ consultation rooms about sharps management
- Review vaccination rates for Hepatitis B vaccination and take action to ensure all staff are compliant with Hepatitis B vaccination and serological confirmation of status as appropriate
- Establish a risk management process for any staff who does not establish adequate hepatitis B antibody protection following vaccination

#### Sterilisation

- Undertake a review of processes related to reprocessing of contaminated equipment
- Identify 1 key staff member to be a champion for 100% compliance with instrument and equipment reprocessing and have undertaken an approved course in this area

- Develop signage to remind staff about reprocessing principles
- Provide education and reminders in a variety of formats appropriate to role – for example on line learning programs, guest speakers from local facility
- Celebrate achievements for example three months and 100% compliance with recommendations!

## How will we know a change is an improvement?

#### Safety culture

- Staff interviews on perception of safe practice in relation to infection prevention shows staff feel this is a priority in the practice
- Patients and staff are actively identifying risks or issues associated with infection prevention and these are actioned and noted via practice meeting agendas

#### Vaccination

- % of staff educated and offered vaccination
- % of staff refused vaccination will be documented in 100% of circumstances

#### Sharps management

- Reduction in incidence of needle stick injuries from any cause
- Reduction in needle stick injuries due to overfilling of sharps containers
- % staff educated in sharps
   management

 Weekly audit sharps containers – no incidence of overfilled containers

#### Sterilising processes

- Reduction in reprocessing incidents from any cause
- % of staff undertaking reprocessing that have completed education appropriate for their role
- Monthly audit on documentation/ recording of instrument processing compliance

#### Plan – Do – Study – Act

**Plan – Do** – undertake a 4 week trial – start with education program, email reminders, signage, staff meetings, include patients, ensure all relevant staff are involved

**Study** – compare baseline and progress measures after trial period

Act – positive results – promote, share results with other practices/facilities, start new pilot/target area. No change or negative results – consider why, ask team, consider monitoring for longer, and plan again!

#### Phase five

## = Evaluation and maintenance

#### This final phase of OSSIE is about:

- deciding the purpose of evaluation
- differentiating between process and outcome measures
- determining the best strategies and resources required to evaluate progress of implementation
- analysing progress
- providing feedback
- sustaining improvement.

#### Link to the AICG – Surveillance

This chapter should be read and considered in conjunction with Part C of the AICG (2010), which outlines issues that should be considered in surveillance activity within organisations. Readers can also refer to the tools and resources at the end of the OSSIE toolkit for links to more detailed resources concerning surveillance activities.

| ACTION PLAN<br>So far you have |  |  |
|--------------------------------|--|--|
|                                | Formed a project team<br>Identified champions and<br>opinion leaders |  |
|                                | Assessed gaps, barriers,<br>enablers and organisational<br>readiness |  |
|                                | Solutions and strategies for implementation                          |  |
|                                | Identified and engaged stakeholders                                  |  |
|                                | Developed an action plan   |  |



#### 5.1 Approaches to evaluation

- Evaluation requires ongoing allocation of resources and staff time – for the continuing collection of data, development of support tools such as audit sheets, and time to consult with the team about results and implications for the facility/practice.
- The evaluation plan should include process and outcome measures, and quantitative and qualitative data.
- As much of the focus of the guidelines is on the use of processes that relate to infection control practice, measuring improvement in compliance and use of these processes will provide one indication of the effectiveness of implementation.
- Reduced infection rates are the ultimate goal of the use of the AICG, so where possible and appropriate infection rates should be monitored and measured.

#### 5.2 Measurement

#### 5.2.1 What should we measure (or how will we know a change is an improvement?)

- Decisions about what to measure and sample size will be guided largely by the issues identified in the baseline assessment.
- The range of measures chosen will depend largely on the focus of

## Helpful hint:

When developing an evaluation plan, think about (adapted from RNAO toolkit (2002, © RNAO):

- Which patients/clients should be included
- Where should the data be collected from
- · Which staff will be included
- · What sample size will we need
- What process/outcome measures should we use
- What methods are available to collect the data – what existing tools and resources are available
- What factors might hinder or bias data collection
- · Who will enter the data
- Who will be involved in the analysis
- Who will write the evaluation report
- · Who will present the data
- · How will the data be presented
- Where will the data be presented
- Who will the data be presented to (target audience)
- Who needs to approve the plan.

#### Did you know? Collecting both quantitative and qualitative data ...

... will provide a more comprehensive understanding of the extent to which improvement is being achieved, and the context under which this is occurring. It will enable you to know not only what the effect of the guidelines is on practice, but also how the changes are being received, if there are any other positive or negative effects that were not anticipated, and also to identify lessons for implementation of future guidelines.

implementation, as well as the size and type of facility.

- Use the same methods used for collecting baseline data to collect post implementation data, then compare pre and post implementation results.
- Establish consensus about *what is actually being measured*. For example, if the aim is to see an improvement in the wearing of PPE, what does this mean? Is it simply that staff are wearing PPE, or is it that the equipment is put on, taken off and disposed of in the appropriate manner? Does everyone have a shared understanding of what is meant by compliance with this guideline?

#### Look for the signals

Signal surveillance is a form of surveillance which involves viewing all preventable healthcare associated infections as a "signal" to review associated processes and procedures. This entails retrospective review of the details of the event, the factors involved, review of the systems and processes that underlie identified factors and development of a plan of corrective action where indicated.

This way of monitoring and reviewing infection prevention and control practice may be useful for some smaller facilities as it provides an early warning system to potential problems – a 'signal event'.

#### Helpful hint: Safety culture

Do more than simply monitor incidents – an analysis of "what happened, why it happened, and what needs to happen so it doesn't happen again" can also be described as a "look back" or "root cause" analysis. Establishing a safe, no blame environment to support such processes as part of routine practice will help to develop a safer workplace culture.

- **Process measures** enable a snapshot of progress. If process measures demonstrate positive results, there is an increased chance that there will be a concurrent improvement in outcome.
- Outcome measures help determine the overall effect or result of your program.
- Table 5.1 provides some potential measures for primary care.

## 5.2.2 How and when should date be collected?

- Plan for regular collection and analysis of data.
- At a minimum, data should be collected at baseline, and then a set time following the introduction of new interventions or changes, so that comparisons can be made before and after each intervention.
- Consideration should be given to the time needed to enable change to occur.

## 5.2.3 How much information is needed and how will it be recorded?

- "Just enough data" should be gathered to know whether changes made are leading to an improvement and to make sensible judgments as to next steps.
- Sampling is a simple way to obtain an understanding about how a change is working. One approach to sampling is to collect data at set

times during the week or on set days (NSW Easy Guide, 2002). In this way, teams can gather "just enough data" to enable them to review project progress.

#### Helpful hint: Involve staff in evaluation

The staff of the facility/practice will have a good understanding of the workplace environment, and can provide advice on the chosen measure, ways to collect data, and the best ways to feedback results.

#### **5.3 Analysing results**

- If there seems to be a general trend toward improvement

   continue with the existing implementation approach.
- Where there has been no change or improvement – consider reasons for this in collaboration with colleagues. It may be that it is too soon to expect a change, or that more information is needed to establish why the intervention is not working.

## 5.4 Providing feedback about progress

- Consider whether feedback will be given to individuals or the facility/ practice as a whole.
- Think about what comparisons will be used – past performance, peers, or benchmarks (Carey et al, 2009).

#### Table 5.1 – Measures for evaluation

#### Quantitative data

#### All primary care practice

- % of staff educated and trained in hand hygiene (aim for 100%)
- Hand Hygiene product use, compliance re: ordering Hand Hygiene solution rates per room/practice
- % of staff educated and trained in infection control practice & guidelines (aim for 100%)
- % of patients assessed for infection control risk
- % of staff educated and offered vaccination
- % of staff vaccinated
- · incidents related to occupational exposure

#### As appropriate/context specific:

- % of patients offered vaccination ( eg influenza/Hep B/c.pox vaccinations – aim for 100% of eligible)
- % of patients offered vaccination and refused
- % of patients offered vaccination and accepted/completed
- · Observational studies of compliance eg sharps bins
- Occupational exposures blood/body/sharps

#### **Qualitative data**

- · Patient experience of care
- · Staff evaluation of infection control training and education
- · Staff opportunities for and access to learning
- · Responses of staff to audit results

- Use creative methods and forums (see phase three for communication ideas).
- Build in processes to acknowledge and celebrate progress.
- Incorporate improvement measures into the system of care, as this will improve the likelihood that any gains made as part of the implementation activity are maintained. Determining measures that can be used to monitor progress in an ongoing way, and developing a system for regular feedback of results, is pivotal to maintaining use of the AICG in practice in the long term.



#### How to: Develop an evaluation plan

- Use the evaluation planning template in phase five of the OSSIE toolkit to develop your evaluation plan
- Refer to the hints on presenting results that are provided in phase five of the OSSIE toolkit.

#### Notes

### References and resources

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## **Useful links**

#### Links to websites for guideline implementation resources

#### Appraisal of Guidelines Research and Evaluation (AGREE)

www.agreecollaboration.org/

#### **Guidelines international Network (GIN)**

www.g-i-n.net/

#### **Implementation Central**

www.implementationcentral.com/

Provides a range of information, tools and resources for implementation of evidence based guidelines.

#### **Implementation Science**

#### www.implementationscience.com/

Implementation Science is an open access, peer-reviewed online journal. Full text articles are freely available from the journal website. The journal publishes research relevant to implementation. "Implementation research is the scientific study of methods to promote the systematic uptake of clinical research findings and other evidence-based practices into routine practice, and hence to improve the quality and effectiveness of health care. It includes the study of influences on the healthcare professional and organisational behaviour". From: www. implementationscience.com/info/about/ last accessed 28 September, 2010.

#### National Health & Medical Research Council (NHMRC) guideline portal

www.nhmrc.gov.au/guidelines/index.htm

#### National Institute for Clinical Studies (NICS - an institute of the NHMRC)

www.nhmrc.gov.au/nics/index.htm

#### National Institute for Clinical Excellence (NHS)

www.nice.org.uk/

#### Scottish Intercollegiate Guidelines Network (SIGN)

www.sign.ac.uk/

#### Links to websites for infection prevention and control

#### Aged Care Accreditation

http://australia.gov.au/directories/australia/aged-care-accreditation http://www.accreditation.org.au/

#### Australian Council for Healthcare Standards (ACHS)

www.achs.org.au

#### Australian Infection Control Association (AICA)

www.aica.org.au/default.asp?PageID=46

#### Australian Society for Infection Control (ASID)

www.asid.net.au/

#### **Centers for Disease Control (USA)**

www.cdc.gov/

#### Centre for Health Related Infection Surveillance and Protection (CHRISP) Queensland

www.health.qld.gov.au/chrisp/default.asp

#### **Clinical Excellence Commission (CEC) NSW**

www.cec.health.nsw.gov.au/

#### Hand Hygiene Australia (HHA)

www.hha.org.au/

#### Health Care Infection Control Special Interest Group (HICSIG)

www.asid.net.au/hicsigwiki/index.php?title=Main\_Page

#### Hospital Infection Society (HIS) UK)

www.his.org.uk/

#### The International Nosocomial Infection Control Consortium INICC

www.inicc.org/english/index.php

#### NSW Health/Quality and Safety - HAI

www.health.nsw.gov.au/quality/hai/index.asp

#### South Australian Infection Control Service

www.health.sa.gov.au/infectioncontrol/

#### **Tasmanian Infection Prevention and Control Unit**

www.dhhs.tas.gov.au/peh/tasmanian\_infection\_prevention\_and\_control\_unit

#### Victorian Hospital Acquired Infection Surveillance System (VICNISS)

www.vicniss.org.au/

## Healthcare-Associated Infection Surveillance in Western Australia (HISWA)

www.public.health.wa.gov.au/3/277/3/surveillance\_hiswa.pm

#### World Health Organisation (WHO)

www.who.int/topics/infection\_control/en/

#### World Health Organization (WHO) Clean Care is Safer Care

www.who.int/gpsc/5may/background/5moments/en/

#### Society for Health Care Epidemiology in America (SHEA)

www.shea-online.org/

#### Links to websites providing tools and resources for improvement

#### Institute for Health Care Improvement (IHI)

www.ihi.org/IHI/Topics/Improvement/ImprovementMethods

#### Links to websites for patient safety and engagement

#### Institute for patient and family centred care (USA) www.ipfcc.org/ World Health Organisation (WHO) www.who.int/patientsafety/en/

#### Links to Professional Association websites

(including infection Control Standards and related information where available)

#### Australian Dental Association (ADA)

www.ada.org.au/dentalprofessionals/publications/guideinfectcont.aspx

#### Australian Practice Nurses Association (APNA)

www.apna.asn.au

#### Royal Australian College of General Practitioners (RACGP)

#### Infection Control Standards and related information

www.racgp.org.au/standards/534

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