STANDARD OPERATING PROCEDURE

HAND HYGIENE COMPLIANCE AUDITING

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ACRONYMS

ABHR	alcohol-based handrub
GSA	Gold Standard Auditor
HAI	healthcare-associated infection
HCW	healthcare worker
HH	hand hygiene
HHC	hand hygiene compliance
IPC	infection prevention and control
ICP	Infection Control Professional
WHO	World Health Organization

INTRODUCTION

Healthcare-associated infection (HAI) is a major problem for patient safety. Studies have shown hospital-wide prevalence of HAI ranged from 5.7% to 19.1%, with the greater burden of HAI occurring in low- and middle-income countries (1). There is now substantial evidence that improving hand hygiene (HH) of healthcare workers (HCWs) can prevent many avoidable infections (2).

WHO has developed evidence-based guidelines on HH in healthcare to support healthcare facilities to improve HH and therefore reduce HAI (3). It is recommended to use a multi-modal strategy to improve hand hygiene practices, which includes monitoring and feedback (4, 5). Use of the WHO 5 moments for hand hygiene in healthcare, provides a standardized approach for education of staff about when to perform HH and auditing of hand hygiene compliance (HCC) (2, 6).

METHODOLOGY

The surveillance methodology and resources developed for this standard operating procedure are based on:

- WHO My five moments for hand hygiene (3, 6)
- Hand Hygiene Australia (HHA) National Hand Hygiene Initiative (2)

Data should only be collected by staff who have been trained as either a 'Gold Standard' or 'General' auditor.

THE 5 MOMENTS FOR HAND HYGIENE

The 5 Moments for Hand Hygiene are a theoretical model of how infectious agents can be transferred between a healthcare worker (HCW) and patients. It is inclusive of all occasions where a patient's safety can be endangered by the care given by a HCW; where opportunity exists for transfer of infectious agents between HCW, patient and the healthcare environment.

The 5 Moments for Hand Hygiene are:

Moment 1: Before touching a patient

Moment 2: Before a procedure

Moment 3: After a procedure or body fluid exposure risk

Moment 4: After touching a patient

Moment 5: After touching a patient's surroundings

KEY TERMS WITHIN THE 5 MOMENTS FOR HAND HYGIENE

Term	Definition
Patient	Includes any part of the patient, their clothes, or any medical device that is connected to the patient. If the patient were to get up out of bed and walk off, what would still be attached? These items become part of the "patient".
Procedure	Is an act of care for a patient where there is a risk of direct introduction of a pathogen into the patient's body.
Body fluid exposure risk	Any situation where contact with body fluids may occur. Such contact may pose a contamination risk to either healthcare worker or the environment.
Patient zone	Includes the patient and the patient's immediate surroundings. The patient zone is a space dedicated to an individual patient for that patient's stay. This area is cleaned between the discharge of one patient and the arrival of the next to minimise the risk of transmission of organisms between patients. Assumptions are generally made that within the patient zone the patient flora rapidly contaminates the entire patient zone; and the patient zone is cleaned between patients. Within the patient zone there are 2 critical sites, the clean site (for example IV access point) that needs to be protected against microorganisms, and the body fluid site (for example IDC) that leads to the healthcare workers hands being exposed to body fluid.
Healthcare zone	Refers to all regions outside of the *Patient zone*. This includes the curtains, partitions and doors between separate patient areas. The healthcare zone can include shared patient areas as these areas are not cleaned between patients. Assumptions are generally made that within the healthcare zone there are organisms foreign and potentially harmful to all patients, and that transmission of these pathogens to the patient results in exogenous infection.

Term	Definition
Curtains	Patient bed curtains are outside the *Patient zone* and are frequently contaminated with microorganisms foreign to the patient inside. Touching the curtains after caring for a patient is considered to be equivalent to leaving the patient zone. Hand hygiene should be performed between touching the curtains and touching the patient and vice versa.

THE 5 MOMENTS IN DETAIL

MOMENT 1 – BEFORE TOUCHING A PATIENT

WHEN:

On entering the patient's zone before touching the patient

WHY:

To protect the patient against acquiring foreign microorganisms from the hands of the HCW.

TO PREVENT:

Patient colonization/infection with foreign microorganisms.

RATIONALE:

HCWs are likely to have microorganisms on their hands (for example, their own microorganisms, from another patient or from the healthcare environment). Performing HH before touching a patient prevents these microorganisms being transferred to the patient during patient contact.

EXAMPLES:

Perform hand hygiene before:	Example
Touching a patient in any way	• Shaking hands • Assisting a patient to help move them • Touching any medical device connected to the patient (for example, IV pump, indwelling urinary catheter) • Allied health interventions
Any personal care activities	• Bathing • Dressing • Brushing hair • Putting on personal aids such as glasses

Perform hand hygiene before:	Example
Any non-invasive observations	• Checking the patient's pulse rate, blood pressure, oxygen saturation, or temperature • Chest auscultation • Abdominal palpation • Applying ECG electrodes • Cardiotocography (CTG)
Any non-invasive treatment	• Applying an oxygen mask or nasal cannulae • Fitting slings/braces • Application of incontinence aids (including condom drainage)
Preparation and administration of oral medications	• Oral medications • Nebulised medications
Oral care and feeding	• Feeding a patient • Brushing teeth or dentures

MOMENT 2 – BEFORE A PROCEDURE

WHEN:

Immediately before a procedure. Once HH has been performed, nothing else in the patient's environment should be touched prior to starting the procedure.

WHY:

To protect the patient from microorganisms (including their own) from entering their body during a procedure.

TO PREVENT:

Endogenous (patient's own microorganisms) and exogenous (foreign microorganisms) infections in patients.

RATIONALE:

HCWs are likely to have microorganisms on their hands or may pick up microorganisms from the patient's skin. Performing HH immediately before a procedure prevents these microorganisms entering the patient's body during the procedure.

EXAMPLES:

Perform hand hygiene before:	Example
Insertion of a needle into a patient's skin, or into an invasive medical device	• Venepuncture • Blood glucose level • Arterial blood gas • Subcutaneous or Intramuscular injections • IV flush
Preparation and administration of any medications given via an invasive medical device, or preparation of a sterile field	• IV medication • NG tube, PEG or baby NG/gavage feeds • Set up of a sterile field for a dressing change • Vaccination
Administration of medications where there is direct contact with mucous membranes	• Eye drop instillation • Suppository insertion • Vaginal pessary insertion

Insertion of, or disruption to, the circuit of an invasive medical device	• Procedures involving the following:
	  ○ Endotracheal tube
	  ○ Tracheostomy
	  ○ Nasopharyngeal airway devices
	  ○ Suctioning of airways
	  ○ Urinary catheter,
	  ○ Colostomy/ileostomy
	  ○ Vascular access systems
	  ○ Invasive monitoring devices
	  ○ Wound drains
	  ○ PEG or NG tubes
	  ○ Secretion aspiration

Any assessment, treatment and patient care where contact is made with non- intact skin or mucous membranes	• Wound of burns dressings • Surgical procedures • Digital rectal examination • Invasive obstetric and gynaecological examinations and procedures • Digital assessment of newborn palate

MOMENT 3 – AFTER A PROCEDURE OR BODY FLUID EXPOSURE RISK

WHEN:

Immediately after a procedure or body fluid exposure risk, even if you have had gloves on.

WHY:

To protect yourself and the healthcare surroundings from potentially becoming contaminated by the transmission of microorganisms from the patient.

HH should still be performed after removing gloves as they are not always a complete impermeable barrier. Hands may also have been contaminated in the process of removing gloves.

TO PREVENT:

Colonisation/Infection in HCWs, contamination of the healthcare environment, and transmission of microorganisms from a colonized/infected site to a clean site on a patient.

RATIONALE:

After touching a patient, the HCW will have the patient's microorganisms on their hands These microorganisms can be transmitted to another site on the same patient, another patient or a surface in the healthcare environment the HCW touches.

EXAMPLES:

Perform hand hygiene after:	Example

Any potential body fluid exposure	• Contact with potentially contaminated items:
	  ○ A used urinary bottle / bedpan
	  ○ Sputum either directly or indirectly via a cup or tissue
	  ○ Used specimen jars / pathology samples
	  ○ Cleaning dentures
	  ○ Cleaning spills of blood, urine, faeces or vomit from patient surroundings
	  ○ After touching the outside of a drain tube or drainage bottle.
	• Contact with any of the following body fluids:
	  ○ Blood
	  ○ Saliva
	  ○ Mucous
	  ○ Semen
	  ○ Tears
	  ○ Ear wax
	  ○ Breast milk or colostrum
	  ○ Urine
	  ○ Faeces
	  ○ Vomitus
	  ○ Pleural fluid
	  ○ Cerebrospinal fluid
	  ○ Ascites fluid
	  ○ Lochia

Perform hand hygiene after:	Example
	○ Meconium ○ Pus ○ Bone Marrow ○ Bile ○ Organic body samples, for example, biopsy or cell samples

MOMENT 4 – AFTER TOUCHING A PATIENT

WHEN:

After touching a patient, before you leave the patient zone.

WHY:

To protect yourself, the healthcare environment and other patients from potentially becoming contaminated with microorganisms from the patient.

TO PREVENT:

Colonisation/Infection in HCWs and other patients, and contamination of the healthcare zone.

RATIONALE:

After touching a patient, the HCW has the patient's microorganisms on their hands. These microorganisms can be transmitted to the next patient or surface the HCW touches.

Perform hand hygiene after:	Example
Any Moment 1	• See Moment 1 examples

MOMENT 5 – AFTER TOUCHING A PATIENT'S SURROUNDINGS

WHEN:

After touching a patient's surroundings before you leave the patient zone even when the patient has not been touched.

WHY:

To protect yourself, other patients and the healthcare zone from potentially becoming contaminated with microorganisms from the patient's surroundings.

TO PREVENT:

Colonisation/Infection in HCWs and other patients, and contamination of the healthcare zone.

RATIONALE:

After touching surfaces in the patient zone, the HCW will have microorganisms on their hands. These microorganisms can be transmitted to the next patient or surface in the healthcare zone the HCW touches.

Perform hand hygiene after:	Example

Touching the patient's immediate surroundings when the patient has not been touched	• Patient surroundings include:
	  ○ Bed, bedrails and bed linen
	  ○ Overbed table
	  ○ Bedside chart
	  ○ Bedside locker
	  ○ Call bell/TV remote control
	  ○ Light switches in the patient zone
	  ○ Patient belongings (including books, mobility aids)
	  ○ Chair
	  ○ Foot stool
	  ○ Monkey bar

TWO PATIENTS IN THE SAME PATIENT ZONE

Two or more patients may be in such close contact that they occupy the same physical space and touch each other frequently. For example, a mother and her newborn child, or twins occupying the same cot.

The two close patients may be viewed as occupying a single patient zone. HH is still required when entering or leaving the common patient zone, and before and after procedures on the individual patients, but the indication for hand hygiene when moving between the two patients has little preventative value because they are likely to share the same microbial flora (3).

PREPARING TO AUDIT HAND HYGIENE COMPLIANCE

SELECTING HAND HYGIENE AUDITORS

Careful thought and planning needs to be put into choosing the most suitable people to conduct the HH compliance audits.

Points to consider when selecting auditors include the following.

- Have time available to conduct audits.
- Have a background as a clinical health professional.
- Availability to attend HH Auditor training.
- Have a good understanding of auditing/feedback/education processes.
- Acknowledge and understand safety and privacy concerns of patients and staff.
- Have the ability to provide immediate feedback to staff for good HH practices and educate on correct HH practice.
- Using auditors from a variety of health professions could promote widespread acceptance/ownership/participation in activities to improve HH within their area.

TRAINING HAND HYGIENE AUDITORS

There are two types of training proposed: 'Gold standard' auditor and 'general' auditor training.

To ensure consistency of the auditing program and to ensure validation of auditors, participants trained using the Hand Hygiene Australia (HHA) model become the "Gold standard" auditors.

Auditor	Taught by	Can provide HH education	Can conduct audits	Can train new general auditors
Gold Standard	HHA	Yes	Yes	Yes
General Auditor	Gold Standard	Yes	Yes	No

AUDITOR TRAINING REQUIREMENTS

GOLD STANDARD AUDITOR

To become a Gold Standard Auditor (GSA), participation is required in a workshop run by either HHA, or a specific jurisdictional coordinator.

Once qualified as a GSA, attendees are given login access to the 'Training Resources' page on the HHA website, which allows access to all teaching materials and marking guides required to conduct "general auditor" workshops in their own facilities. If you are a qualified GSA and do not have a login please contact HHA via https://www.hha.org.au/contact

Please note: You will be required to show proof of your currency as a validated GSA before access will be given to the Training Resources page.

GENERAL AUDITOR

The mandatory content of the general auditor training program is identical to parts of the GSA training, as all auditors need to collect data in a standardised manner to ensure validity of data.

To achieve general auditor status participants must:

- complete the Auditor Pre-workshop online learning module on the HHA learning management system (https://hha.southrock.com)
- attend and pass a workshop conducted by a HHA recognised GSA.

See the Auditor Training section of the HHA website for detailed instructions.

Successful completion requirements

All workshop attendees must pass a Written and DVD quiz. The pass mark is >70%. Attendees must also show competence in HH compliance auditing in the practical session.

HHA and GSAs must follow a standardised procedure for non-successful participants to gain 'auditor' qualifications. This procedure is available to GSAs via the Auditor Training pages of the HHA website.

INTER-RATER AND INTRA-RATER RELIABILITY AND VALIDATION

Inter-rater reliability should be addressed in the auditor training programs by pairing HH auditors for observations of the same session and then comparing observations recorded, using the HHA trained and validated person as the 'gold standard'.

Each HH auditor should be paired with each of the other validated auditors (if more than 2 observers). Until there is >90% inter-rater agreement in all recordings (for example, type of HCW, HCW activity, HH Moment, HH performance), the official data collection process should not begin.

Intra-rater reliability should be addressed through use of the HHA 5 Moments training DVD. This DVD should be observed on at least two occasions, with data recorded on the appropriate DVD Quiz form or mobile device. The rate of agreement for all recordings is then calculated. If there is less than 90% agreement, HH observers should seek further training.

If regular auditing is not done practice sessions are recommended prior to each data collection period to ensure reliable results. Careful attention is required to ensure that observations are recorded correctly and there is consistent reporting, not only by the individual auditors (intra-rater reliability) but also between the various auditors (inter-rater reliability). The HH or Infection Prevention and Control team should discuss issues as they arise and reach a united approach.

ANNUAL AUDITOR VALIDATION

Annual validation is a method of ensuring all auditors remain up to date with their knowledge of the 5 Moments definitions and audit practices. This in turn ensures valid and reliable data being collected and reported.

It is recommended that all trained auditors, both GSA and general auditors, complete annual validation to maintain their auditor status. It is the responsibility of the HH lead to ensure all auditors in their organisation(s) are validated.

Validation is the same for both GSA and general auditors. This includes:

- collection of at least 100 moments per year (and entered into the database in their name)
- completion of the Annual Auditor Validation module (available at: https://hhaustralia.southrock.com/)

SELECTING WHERE TO AUDIT

It is recommended to initially select one department to pilot implementation of the HH auditing program. It is important to choose a department where motivation and interest are high, and the health gain is likely to be substantial, thus impacting on the roll out to subsequent areas.

By piloting the program on one department, any initial problems with product placement or supply, staff motivation and education can be addressed prior to rolling out the program to the rest of the hospital.

Several factors need to be considered when determining which departments should be audited. As HH is the single most important element of strategies to prevent HAI, departments known to have greater potential for high infection rates should be targeted. Improvements in HH compliance rates in these areas will have the greatest impact on the prevention of infection and provide a safer environment for patients. Generally, these departments also have the greatest staff/patient activity and interaction, which results in higher numbers of 'Moments' being audited in shorter time periods.

Auditing departments where there is little staff/patient activity and interaction (for example, non-acute settings) will result in a small number of moments being observed. Resources required to undertake auditing may be better utilised measuring other aspects of a HH program, for example, product placement, education etc.

The selection of departments should be made in conjunction with the appropriate committee at the hospital (for example, Infection Control Committee, Hand Hygiene Committee, and Quality Improvement Committees) and with Executive approval.

Once a HH program has been established and HH compliance is audited regularly, it is preferable that all wards/departments participate in the program throughout the year. Auditing and reporting results to each ward/department encourages ownership of the program by the whole hospital.

Departments that should not be included are sterilization services department, kitchen, laundry, and other areas where there are no patients.

CONDUCTING A HAND HYGIENE COMPLIANCE AUDIT

Hand hygiene compliance auditing is undertaken by direct observation of HCWs by trained and validated auditors. This will ensure reliability and standardisation of data collected.

RULES FOR AUDITING THE 5 MOMENTS

The table below outlines some specific rules for auditing the 5 Moments. This table can also be found in Annex 4 in a printable format, so that it can be taken by auditors when auditing to remind them of the rules.

Rule	Extended definition
Moment 1	**HH Moment 1** is recorded only once the HCW touches the patient
Moment 2	**HH Moment 2** is record immediately prior to any procedure. • Once HH has been performed, nothing in the patient's environment can be touched prior to the procedure starting
Moment 3	**HH Moment 3** is recorded immediately after a procedure of body fluid exposure risk: • Nothing else should be touched prior to performing HH • Touching the outside of a drain or drainage bag (for example, urinary catheter, wound drain, chest-tube drain, CSF drain), even when the circuit is not broken, is considered a body fluid exposure risk • Can be recorded as a stand alone HH Moment when there is a body fluid exposure risk, but no patient contact – for example, cleaning a spill of vomit, urine or faeces.
Moment 4	**HH Moment 4** is recorded after touching the patient • Touching the patient surroundings after touching the patient is recorded as a single ***Moment 4***. • If after ***Moment 3*** there is touching of the patient surroundings before leaving the patient zone this is recorded as a ***Moment 4***.
Moment 5	**HH Moment 5** is recorded when the HC leaves the patient zone after touching the patient's immediate surroundings and the patient has not been touched. • When multiple items in the patient surroundings are touched, only one ***Moment 5*** is recorded.
Notes	
Before/After Moments	Generally, for every 'before' Moment there should be an 'after' Moment recorded, unless the auditor does not witness the action. • **Moment 1** is generally followed either by a ***Moment 3*** or ***Moment 4***. • **Moment 2** is generally followed by ***Moment 3***. • **Moment 5** is a stand alone Moment as there is no patient contact.

	• There are a few situations when two 'afters' may be recorded sequentially, however you will never have a ***Moment 1*** and a ***Moment 2*** in a row.
Action missed if not observed	The HCW must be observed to perform HH as they approach the patient. If HH is not observed it should be recorded as a 'missed' action (that is, HH not performed).
Only audit what you observe	No 'before' Moment can be recorded if auditing commence after a HCW is already touching the patient, or in the process of performing a procedure. No 'after' Moment can be recorded unless the Moment is observed.
Curtains	Patient bed curtains are outside the patient zone and are frequently contaminated. Touching the curtains is equivalent to leaving the patient zone. HH should be performed between touching the curtains and touching the patient, and vice versa.
Double Moments	Two Moments for HH can occur simultaneously, for example, when moving directly from one patient to another without touching anything in between. In this situation, a single HH action coves the two Moments for HH, as Moments 4 and 1 coincide. When moving from touching a patient to performing a procedure on that same patient, Moments 4 and 2 coincide. When auditing in either situation, both Moments should be recorded as individual Moments on the data collection form.
When not to record a Moment	HH compliance is audited by HCW compliance with the 5 Moments; it is not audited by HCWs performing HH. HH actions **not** corresponding to a recognised Moment are not recorded, for example, when a HCW walks into a patient's room, does HH and walks out without touching anything. In this case no Moment had occurred, despite HH taking place, so no Moment can be recorded.

ONE ACTION – TWO MOMENTS

Often two moments for HH will coincide. Typically, this occurs when moving directly from one patient to another without touching anything in between. In this situation a single HH action will cover two moments for HH, as Moments 4 and 1 coincide.

For example, moving from touching one patient to another patient:

- HH is performed after touching patient A = Moment 4
- HCW goes to the next patient area and touches patient B on the shoulder = Moment 1
- The one HH action after touching a patient also counts as the HH for before touching a patient.

Another example is when moving from touching a patient to performing a procedure on that same patient:

- After touching the patient, HH performed = Moment 4
- HCW changes the IV fluid bag on the same patient = Moment 2
- The one HH action after touching the patient also counts as the HH before the procedure.

When auditing in either situation, both Moments are recorded as separate Moments on the audit tool.

If the HH action (rub/wash) is missed in either of the above situations the Moments are still recorded the same, however both the actions will be entered as "missed".

WHEN NOT TO RECORD A MOMENT

HH compliance is audited by Moments; it is not audited by HH actions.

It is important to understand that HH actions not corresponding to an opportunity (or reason for HH in accordance with the 5 Moments) and therefore 'additional' and not required should not be audited by the observer. For example, a HCW walks into a patient's room, performs HH then walks out without touching anything – no Moment has occurred therefore, no Moment is recorded.

OVERCOMING BIAS IN AUDITING

Observer bias is introduced by inter-observer variation in the observation. The HHA training schedule of validation of auditors has been created to minimise this bias.

Selection bias is introduced by selecting HCWs, care settings, and observation times with specific HH behaviour. In practical terms, this bias can be minimised by randomly choosing locations (from your set reporting wards) and times of the day to audit.

When HCWs know HH compliance is being measured, they often initially attempt to behave correctly. This is known as the 'Hawthorne Effect'. Evidence suggests that the Hawthorn effect may only increase compliance in areas that already have good compliance rates, but there will be no noticed effect on wards starting with low compliance. Indicating that people who know when HH should occur can improve their practice under auditing conditions, however people who don't know the correct 'hand hygiene Moment' to perform cannot improve their performance without further education.

With repeated observations, HCWs generally grow accustomed to the observer and are less affected by their presence, particularly if they know the auditor and are comfortable being observed.

PREPARATION OF THE WARDS

Unit Managers should be notified prior to commencing compliance auditing.

Wards / departments should be asked to ensure alcohol-based handrub (ABHR) products are in all the appropriate places before auditing commences. If there are barriers to HH, for example, no available ABHR, soap or paper towels, this should be recorded in the notes section of the audit tool, then reported to the shift or unit manager prior to leaving the area.

EQUIPMENT REQUIRED FOR COLLECTION OF HAND HYGIENE COMPLIANCE DATA

You will need the following:

- Copies of the Data collection form (see Annex 1)
- Coding classification sheet (see Annex 2)
- Audit ward summary sheet (see Annex 3)
- Rules for auditing (see Annex 4)

OR

- A mobile device with the HHA Hand Hygiene Compliance Mobile. The mobile device can be either a smart phone or tablet. The device does not need to be connected to the internet when conducting auditing. Data can be downloaded to the HHA database when Wi-Fi or internet access is available at a later time.

CONDUCTING A HAND HYGIENE COMPLIANCE AUDIT

- Arrive at target ward / department and introduce yourself to the shift manager and inform them of your role.
- Always perform HH upon entering a ward to audit. It is very important to lead by example.
- HH auditors are encouraged to be open and honest about what they are doing and show the audit tool and how the data collected is de-identified. This may be for staff, patients or visitors.
- There needs to be at least one patient and one HCW present in a room to start auditing. If neither are present, move to another room.
- Auditors need to position themselves to view the patient bed, sink, and ABHR area; however, they must remain out of the workflow area of the observed staff. The presence or absence of a convenient location from which to observe patient beds and HH facilities may impact on which patient bays are selected for observation.
- When a patient's bed curtains are drawn, permission should be sought from the relevant HCW and patient to allow auditors to continue to view activities in the area (that is, behind the curtain). Although there may be some occasions when this is not appropriate, these are rare. Observing HCW activities behind closed curtains in the ICU is often necessary.
- HH compliance should be assessed on all categories of HCWs who enter ward bays being observed. Try not to observe the same HCW for the entire audit session.
- The number of HCWs observed at one time depends on their level of activity and the competency of the auditor. More than one HCW can be observed simultaneously, provided their HH Moments can be accurately observed and recorded. If this is not possible, then the compliance of additional HCWs should not be recorded until the index HCW has left the bay or has ceased activity. It is better to record fewer moments accurately than many Moments inaccurately.
- A HH Moment is only documented when the field observer can accurately observe the HCW and the Moment that has been completed. If an auditor is unsure whether the observed HCW performed HH, then such Moments should not be recorded. The only exception is when a HCW is observed to enter a room and go directly to the patient.
- A Moment finishes when a HCW:
- moves from one patient to another
- leaves the room on completion of patient care
- touches the curtain partition in a multi-patient room
- moves from touching a patient to doing a procedure or vice versa.

- A Moment can finish in another area outside a patient room if patient care is not yet completed, for example, transporting a bedpan to the pan room.
- The observational audit session has no specific time frame, it can be conducted for as long or as little time as the auditor has allocated.
- At the conclusion of an audit session the following should be undertaken:
- Thank the shift manager and highlight any problems that need addressing immediately, for example, no HH product available
- If data is collected on a mobile device a report can be generated immediately to provide feedback to the ward.

There can be circumstances where it is not appropriate to conduct a HH observation session; these include:

- emergency situations where HH is secondary to patient safety (for example, during resuscitation)
- end of life care
- if the patient, or patient's family object
- during private discussions between HCWs and patient/ patient's family.

HOW TO USE THE HAND HYGIENE DATA COLLECTION TOOL

All HH compliance data should be recorded for each of the 5 Moments using either:

- the paper Data collection form (see Annex 1) and manually entered later

OR

- a mobile device that syncs data directly into the Compliance database (either immediately or at a later stage).

Use of mobile devices for data collection removes duplication of data entry and will save time. But the method of collection will be dependent on access to a mobile device and ability to sync the device to upload data to the database. In the early stages of learning to collect HH compliance data, it may be simpler to use the paper audit tool until the auditors are more familiar with the audit process.

PAPER BASED DATA COLLECTION – USING THE HAND HYGIENE DATA COLLECTION FORM

For each session fill in the demographic details on arrival at the target ward.

- Organization = Hospital or facility name
- Session number = The audit number for that particular ward which is then transferred to the hand hygiene ward summary sheet (see Annex 3)
- The first audit on a specific ward will be session no.1
- The second audit on the same ward will be session no.2
- The first audit on a different ward will be session no. 1 on that ward
- Start and Finish times are for your own personal statistics to enable you to calculate the amount of time it takes to conduct each audit. This information can then be reported to your senior management to assist with staffing requirements.

For each Moment observed the following should be recorded on the audit form:

- HCW – needs to be filled in every time a Moment is observed
- Moment – fill in the Moment observed.

- Only one Moment should be filled in per box. If multiple Moments are observed a new box needs to be filled in for each moment (see Appendix 3)
- Action – needs to be filled in for every Moment observed
- If no hand hygiene action is observed then it is recorded as a missed action
- If the HCW performs hand hygiene then proceeds to touch their face/nose/mouth or touches items in the healthcare environment prior to touching the patient then this should be recorded as a missed hand hygiene action
- If a HCW is observed to do hand hygiene incorrectly (for example one handed, minimal volume ABHR or no soap) this should be recorded as a missed action
- Gloves – are only recorded if the HCW puts gloves on in a Before Moment (1 or 2), takes gloves off in an after Moment (3, 4, or 5), or continues from one Moment to another with the same pair of gloves
- Even if gloves are worn for patient care hand hygiene still needs to be performed and recorded before and after glove use
- If no gloves are worn then the "gloves" box is left blank.

DATA COLLECTION VIA A MOBILE DEVICE

If using a mobile device, user instructions can be found on the HHA website <https://www.hha.org.au/faq/hhcapp-mobile>.

In particular, read the "mobile device troubleshooting guide". Versions are available for both Apple and Android devices.

You can access the mobile data entry site on your mobile phone/tablet via <https://compliance.hha.org.au/en_AU/HHA/>.

There are multiple data validation codes within the mobile data entry system that will ensure that the required information is entered correctly.

To enable *practice* using either version of the Compliance database, without harming your data set, HHA have set up the following practice login:

Auditor Username: Ignaz

Password: Ignaz1

Please note: Each trained auditor requires an individual login to enter hand hygiene data. Logins should never be shared.

TIPS FOR ACCURATE DATA COLLECTION AND ENTRY

For paper-based data collection:

- Each session on each ward should be recorded on a new data collection form

For mobile data collection:

- Each new auditing session should be started on the Sessions page by pressing the "Add Session" button.

AT THE CONCLUSION OF THE WARD VISIT

For paper-based data collection:

- Check that all demographic fields on each data collection form are correct and legible
- Check that there is a HCW / Moment / Action (+/- Gloves) in each box, if one item is missing that Moment needs to be crossed out as it is incomplete and it cannot be used
- Add up the total number of Moments, and the total number of correct Moments (rub or wash) collected and write the totals at the bottom of audit sheet (Annex 1)
- Fill in the ward summary sheet for each session on each ward ensuring that all fields are filled in (Annex 3).

For mobile data collection:

- Ensure you press the "Done" button, and press "OK" to the message asking if you have finished with this session
- Sync your data
- Logout by pressing the "Logout" button and accept and confirm the logout

PATIENT SAFETY AND PRIVACY DURING HAND HYGIENE AUDITS

Any 'unsafe' practices that are observed during hand hygiene auditing should be addressed immediately or reported to the appropriate manager for follow-up; otherwise, compliance rates should be reported after an audit has been fully completed.

Observation does not justify infringing the principle of patient privacy. Auditors should show discretion regarding where they place themselves and their movements whilst conducting audits. It is recommended that patients be informed on admission that hand hygiene audits are regularly conducted as a quality improvement activity. Patients or their family may request they not be involved in an audit.

DATA ENTRY AND REPORTING

The HHC Database is the database for data entry and reporting of hand hygiene audit data. Data can only be collected and entered by trained and validated hand hygiene auditors. Once auditor training has been completed the trainer is responsible for supplying a personalised login for each auditor to use to enter data into the database.

There are two options for data entry:

Compliance Desktop

The desktop version allows the user to enter hand hygiene data that has been collected on paper. If a user has administrator access, Compliance desktop can also be used to access reports and administrator functions.

Compliance Mobile

The mobile version allows an auditor to enter hand hygiene data in real time as they audit. Compliance Mobile is not an "App"; it is a webpage that can be accessed via the Internet Browser of a mobile device. If using this option to enter data, please ensure you login to begin, and when finished, sync your data and use the "logout" button on completion to minimise errors.

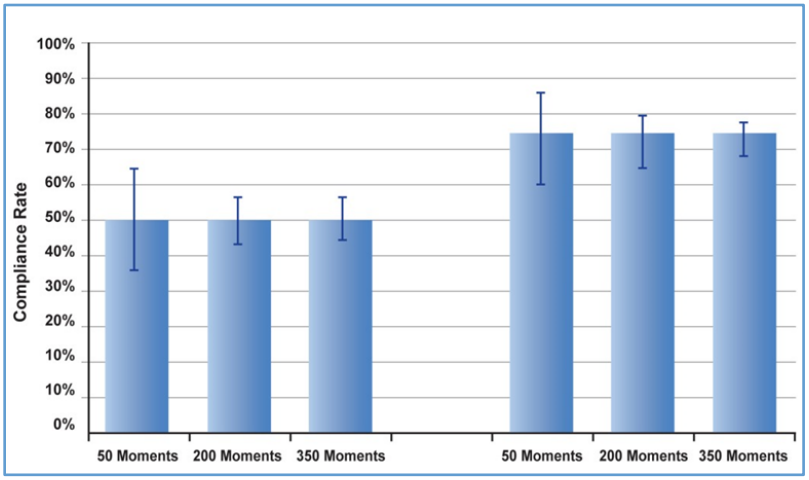
NUMBER OF MOMENTS TO COLLECT

Inevitably compliance data will be used for comparison, be it at a ward, hospital, jurisdictional or national level. When data is used for comparison, it is important to note that a higher number of Moments audited will generate a more reliable compliance rate.

For example, if a ward is audited for 50 Moments generating a compliance rate of 50%, the exact binomial 95% Confidence Interval (95%CI) will be 36% to 64%. This means the real compliance rate could be anywhere between 36% and 64%. If another ward audits 350 Moments and generates a compliance rate of 50%, the 95%CI is 45% to 55%. So, we are more confident the real rate is close to 50%.

It is recommended 95% confidence intervals are included when reporting compliance rates. The Chart below (Fig. 1) demonstrates the effect on confidence intervals when the numbers of moments are increased.

Fig. 1 Comparison of 95% confidence intervals for different numbers of Moments at 50% compliance and 75% compliance



Each organisation will need to determine for itself the number of Moments per ward/unit required per audit period. For the first HHC audit in a ward/unit, it is recommended that at least 200 Moments be collected. This will generally provide an adequate snapshot across the 5 Moments and a range of HCWs to give an accurate assessment of HHC. After interventions have been implemented, HHC should be monitored on a regular basis to ensure ongoing compliance, for example, 50 Moments per month.

MANAGING USERS

Organisations are responsible for users attached to their organisation, and the roles that they are assigned to. Appropriate consideration of data governance needs to be given when allocating roles within the database.

Users only require one login which remains with them if they move to another facility. This login should be personalised and not generic.

Administrators can also export a list of users using the 'Users' tab at the top right of the database home page.

For further information on how to manage users in the Compliance database please see the Compliance Database Instructions webpage.

MANAGING DEPARTMENTS

Organisations set-up and manage the list of wards/departments in the Compliance database for their organisations. Details of department types can be found on the Data Definitions webpage.

Careful consideration must be given to any changes to departments in the database. If there are changes required, the following is suggested:

- Create a new department if your organisation has expanded and a new department is being opened.
- Edit the name of a department if a department has changed its name, but the case mix remains the same. This is important for historical reporting and ensuring the data is still for the same department.
- Archive (inactivate) a department if the department has closed.

OR

- If the case mix has changed significantly, HHA recommend archiving the department and creating a new department.

For further information on how to manage users in the Compliance database please see the Compliance Database Instructions webpage <https://www.hha.org.au/faq/hhcapp-faq>.

MANAGING HEALTHCARE WORKER TYPES

There are set HCW types listed in Compliance Database for all organisations. Details of the HCW Types can be found on the Data Definitions webpage. Th HCW types are also noted on the Coding classification sheet (Annex 2) to refer to when auditing.

Administrators are able to create 'local' categories for stratified local reporting if required. For example, AH (Allied Health) can be split into PT (Physiotherapy), OT (Occupational Therapy) etc.

For further information on how to manage users in the Compliance database please see the Compliance Database Instructions webpage <https://www.hha.org.au/faq/hhcapp-faq>.

REPORTING RESULTS

Feedback of results to all concerned is fundamental to any data collection process. Feedback is an essential part of every quality cycle, and feedback of improved audit results assists in maintaining local support and enthusiasm for the hand hygiene program. More importantly feedback of poor compliance rates that remain unchanged requires intervention.

Reports for organisations can be produced at any time from Compliance Database. For step-by-step instructions on how to generate reports from the Compliance Database refer to the HHA website Compliance Database instructions <https://www.hha.org.au/audits/compliance-database/instructions>.

The hand hygiene organisation administrator can choose to report by national audit period, local audit period, or by a specific date range, for example, monthly.

The following reports are available to all users with reporting access:

Compliance rate by Organisation

- Only available if you have access to multiple organisations

Compliance rate by Department

- An organisation report with HHC for all departments on one report
- This report can be filtered for 'Department Type'

Compliance rate by HCW Type

- A report with HHC for each HCW type on one report
- Can be run at an organisation level, or for a specific department

Compliance rate by Moment

- A report with HHC for each Moment on one report
- Can be run at an organisation level, or for a specific department
- This report can also be filtered for 'HCW type'

Compliance rate by Department Type

- Groups HHC data by department type, rather than individual departments, for example, all medical departments HHC combined

Combined Compliance rate by Moment and HCW type

- Includes both the HCW type report and Moment report into one file

Auditor and sessions

- This report provided details on the data collected by each auditor at an organisation, including number of moments collected and compliance rate collected by an individual auditor.

Action by Moment

- A report detailing which hand hygiene action was used for each moment, rub, wash, missed
- Can be run at an organisation level, or for a specific department

Poster report

- This report provides a one-page summary of hand hygiene for the selected organisation/department relevant to the user's level of access.
- The report details overall HHC, HHC by moment, and HHC by HCW in the selected area
- This report is useful as a summary report for management, or as a poster to display hand hygiene results for the public

Zero reports

Most of the above reports now have the option to include entities without data. This allows for gaps in data collection to be easily found.

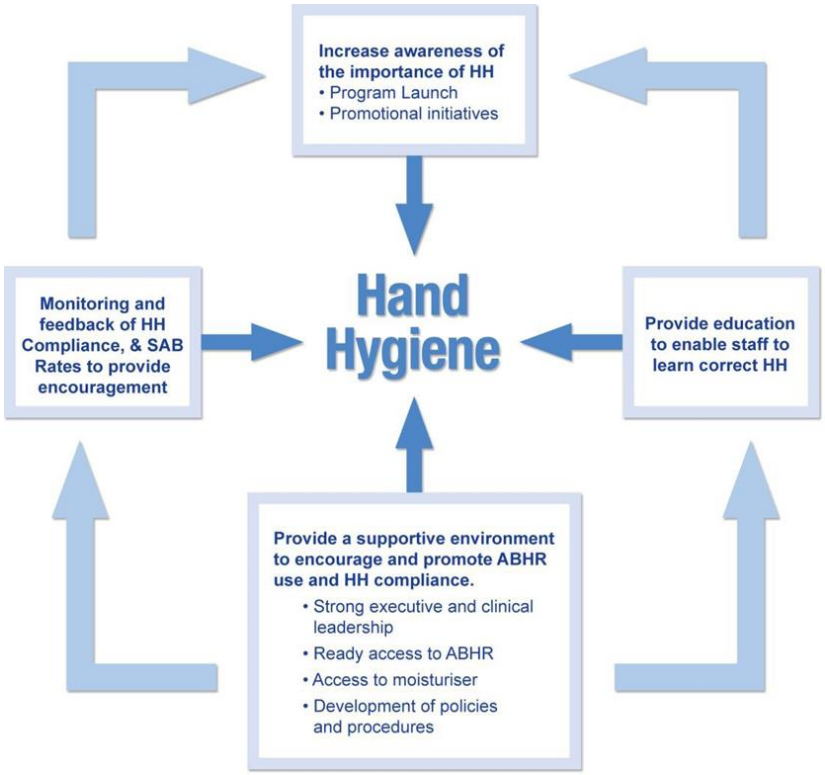
THE HAND HYGIENE PROGRAM

Hand hygiene auditing is only one aspect of a successful hand hygiene program. Other components of a hand hygiene program include:

- increasing organisational awareness of the importance of hand hygiene
- providing education to staff to enable them to perform hand hygiene correctly
- providing access to hand hygiene products and infrastructure
- monitoring and feedback of compliance with hand hygiene policies and procedures and outcome measures.

Fig. 2 below outlines components required for hand hygiene culture change and how they support and hand hygiene program.

Fig. 2 Hand hygiene culture change



For the HH program to be successful it is essential to have the enthusiastic and continued support of your facility Executive. HCW acceptance and ownership of the program will assist sustainability.

To facilitate the continued success of the program, the HH project team should:

1. Initiate reporting of HHC results as a regular infection control or quality report to the chief executive officer (CEO) / health facility board
2. Extend the program to all wards/departments
    - Ensure healthcare facility ownership by progressing the hand hygiene education and auditing program. For continued improvement and sustainability of the hand hygiene program it is imperative that all departments are included in the program.
3. Report results back to wards/departments

- As per any quality activity, it is important after conducting an audit to feedback the results to the relevant groups, for example, HHC per ward or HCW group. This will encourage ownership of the program at an individual level.

4. Evaluate the HH program performance

EVALUATING THE HAND HYGIENE PROGRAM

Once a HH program is firmly established it is important to review and continually refresh it. When launching (or relaunching) your HH program, remember that the program is not just about hand hygiene auditing, or completing a learning package. It is a continuous quality improvement cycle of education, monitoring and feedback that results in behavioural and cultural change across all staff.

It is important to evaluate and relaunch the HH program every 1-2 years to revitalise existing staff enthusiasm and to capture the attention of new staff. A useful tool for evaluating the HH program is the WHO Hand Hygiene Self-Assessment Framework <https://www.who.int/teams/integrated-health-services/infection-prevention-control/hand-hygiene/monitoring-tools>.

The Framework is a tool with which to obtain a situation analysis of hand hygiene promotion and practices within an individual health-care facility, according to a set of indicators. It also acts as a diagnostic tool, identifying key issues requiring attention and improvement. Repeated use of the Framework will allow documentation of progress with time.

An Action Plan template is also provided at the same website, along with sample action plans based on performance levels described within the Framework.

According to the Framework, an ideal hand hygiene culture change program should include:

- an easily available and continuous supply of ABHR
- appropriate availability of sinks, soap, and paper towel
- mandatory hand hygiene training of all HCWs on commencement of employment, with ongoing education throughout the year
- staff available to conduct hand hygiene education throughout the facility
- validated staff to conduct HHC assessments
- regular HHC audits
- regular feedback of HHC audit / program measures, including immediate feedback and data trends over time, to:
    - healthcare workers
    - facility leaders
- hand hygiene promotional materials throughout the facility
- establishment of a HH project team that has dedicated time to regularly promote hand hygiene
- clear commitment from the CEO, Director of Nursing, and Medical Director
- patient engagement programs
- initiatives to support local continuous improvement, for example, online learning programs, hand hygiene newsletters.

HAND HYGIENE FACILITIES AND PRODUCTS

Critical to the success of the HH program is access to hand hygiene facilities, whether that is functioning hand basins with soap, water and paper towel or an ABHR. For staff to be compliant with the 5 Moments, they must have ready access to hand hygiene facilities, especially ABHR.

Research has demonstrated that ABHRs are better than traditional soap and water because they:

- result in a ***significantly*** greater reduction in bacterial numbers than soap and water in many clinical situations
- require ***less time*** than handwashing
- are gentler on skin and cause ***less skin irritation*** and dryness than frequent soap and water washes, since all handrubs contain skin emollient (moisturisers)
- can be made readily ***accessible*** to HCWs
- are more cost effective.

Both soap and ABHR products are necessary for the introduction of a HH program; a soap and water wash is required if hands are visibly soiled, and either product can be used if hands are visibly clean.

ABHR is the gold standard of care for hand hygiene practice in healthcare settings, whereas hand washing is reserved for situations when the hands are visibly soiled, or when caring for a patient with *Clostridioides difficile* or a non- enveloped virus (for example, norovirus). ABHR is also the hand hygiene product of choice for all standard aseptic technique procedures.

ALCOHOL-BASED HANDRUB PLACEMENT

Hand hygiene facilities must be available in the HCW's work area near the patient, at the point-of-care. ABHR dispensers act as a visual cue for hand hygiene behaviour, and their strategic and abundant placement makes the product highly accessible for frequent use. Placement of ABHR needs to be consistent and reliable.

Clinical staff should assist with the decision-making process, as they generally best understand the workflow in their area. Although this may be time consuming the benefit of behavioural adherence will be marked.

The placement of ABHR can have a significant effect on the HHC of HCWs. Medical staff have been found to have a HHC rate of 54% when the ABHR was in their line of sight on entering a patient's room, compared to 11.5% when they couldn't see the ABHR dispenser. When designing new healthcare facilities (or refurbishing an old one), consideration should be given to appropriate placement of ABHR.

The placement of dispensers next to hand basins is strongly discouraged as this can cause confusion for some HCWs who may think they need to rinse their hands with water after using ABHR or wash their hands then use the ABHR, which can lead to irritation of the skin.

Ensuring ABHR is available at the point-of-care improves hand hygiene compliance. Point-of-care is the place where three elements come together:

- the patient
- the HCW
- the care or treatment involving contact with the patient.

A HH product should be easily accessible, generally within arm's reach of where patient care or treatment is taking place. Products should be accessible without having to leave the patient zone.

The following ABHR placement locations are suggested:

- on the end of every patient bed (fixed or removable brackets)
- affixed to mobile work trolleys (for example, intravenous, medication and dressing trolleys)
- high staff traffic areas (for example, nurses' station, pan room, medication room and patient room entrance)
- other multi-use patient-care areas, such as examination rooms and outpatient consultation rooms
- entrances to each ward, outpatient clinic or department
- public areas (for example, waiting rooms, receptions areas, hospital foyers, near elevator doors in high traffic areas).

A clear decision needs to be made about whose responsibility it will be to replace empty ABHR bottles. Workplace agreements or job descriptions may need to be changed to accommodate prompt replacement of these bottles. Never pour ABHR from one bottle into another as this may lead to contamination of the bottle and its contents and will mix different production batches.

SAFE ALCOHOL-BASED HANDRUB PLACEMENT

There are a number of risks to patients and staff associated with the use of ABHR. However, the benefits in terms of its use far outweigh the risks. A risk assessment should be undertaken, and a management plan put in place. This particularly applies to clinical areas managing patients with alcohol use disorders, and patients at risk of self-harm. The placement of ABHR needs to be aligned with the risk assessment of the patient population.

- The maximum size of an individual ABHR dispenser should not exceed 500 ml.
- In corridors that are at least 1.8m wide, there should be at least 150cm between each ABHR dispenser
- Dispensers should not project more than 15cm into corridor egress.
- Wall mounted brackets should be located at a height of between 92cms and 122 cm above the floor (avoid placing at eye level).
- Dispensers should not be located over carpeted areas unless the area is protected by active sprinklers.
- Dispensers should not be located over, or directly adjacent to ignition sources (for example, electrical switches, power points, call buttons, or monitoring equipment).
- Dispensers should be separated from heat sources and electric motors.
- Dispensers should be installed according to manufacturers' recommendations and to minimise leaks or spills.
- Regular maintenance of dispensers and brackets should occur in accordance with manufacturers' guidelines.
- Product usage signs should be clearly visible and laminated.
- Regular monitoring of each area is recommended for misuse, or removal of product.
- Each facility should take adequate care regarding the placement of each dispenser so as to protect vulnerable populations, for example in psychiatric units, drug and alcohol units, paediatric units and units caring for cognitively impaired patients.
- ABHR bottles should be designed to minimise evaporation due to the volatile nature of alcohols.
- Site-specific instructions should be developed to manage adverse events, such as ABHR ingestion, eye splashes or allergic reactions.

Special consideration is necessary when locating ABHR in clinical areas where ingestion or accidental splashing is a particular risk. Accidental ingestion of ABHR has been reported but is uncommon.

Such areas include:

- paediatrics – in general, ABHR should be located within the point-of-care when caring for children
- mental health/dementia Units – ABHR should be located within the point-of-care when caring for mentally ill patients, patients undergoing alcohol- or drug-withdrawal, or where there are cognitively impaired patients
- public areas – ABHR placement in high traffic areas requires clear signage addressing appropriate use and the need for parents to carefully supervise their children.

Bracket design is important since ABHR placement may be affected if ABHR brackets are ill-fitting (for example, varying sizes of bed rails can affect the efficacy of some brackets). Consider brackets that are removable, or a product that can be removed from brackets easily in case short term patient demands warrant it. Consider bracket availability and installation costs, since these expenses can be substantial.

Small personal bottles that HCWs carry with them may be more appropriate in some of the above areas.

SOAP AND WATER HAND HYGIENE

As wet hands can more readily acquire and spread microorganisms, the proper drying of hands is an integral part of routine hand hygiene. Single-use paper towels are the most effective way to dry hands and reduce the risk of the transmission of viruses. Evidence indicates that paper towels help minimise the spread of viruses including ones associated with various diseases, including those causing gastro-intestinal infections such as norovirus and rotavirus.

All hand basins should have the following available:

- running potable water
- soap, preferably liquid soap in a wall mounted dispenser mounted next to the sink
- towels, preferably disposable paper towels in a wall mounted dispenser next to the sink
- a waste bin for disposal of used paper towels.

HAND CARE ISSUES

Intact skin is a first line defence mechanism against infection. Damaged skin can not only lead to infection in the host but can also harbour higher numbers of microorganisms than intact skin and hence increase the risk of transmission to others. Damaged skin on HCWs is an important issue and needs to be promptly addressed.

The vast majority of skin problems among HCWs that are related to hand hygiene are due to irritant contact dermatitis. Irritant contact dermatitis is primarily due to frequent and repeated use of hand hygiene products – especially soaps, other detergents, and paper towel use, which result in skin drying. The initial use of ABHR among such HCWs often results in a stinging sensation. However, recent studies have suggested that the ongoing use of emollient-containing ABHR leads to improvement in irritant contact dermatitis in approximately 70% of affected healthcare workers. Also, the use of an oil-containing lotion or a barrier cream three times a shift can substantially protect the hands of vulnerable HCWs against drying and chemical irritation, preventing skin breakdown.

It is important to ensure that the selected ABHR, soaps, and moisturising lotions are chemically compatible to minimise skin reactions among staff.

The WHO consensus recommendations on skin care recommend the following.

- Include information regarding hand care practices designed to reduce the risk of irritant contact dermatitis and other skin damage in education programs for HCWs.

- Provide alternative HH products for HCWs with confirmed allergies or adverse reactions to standard products used in the healthcare setting.
- Provide HCWs with hand lotions or creams to minimise the occurrence of irritant contact dermatitis associated with hand antisepsis or hand washing.
- Advise that, when ABHR is available in the healthcare facility for hygienic hand antisepsis, the use of antimicrobial soap is not recommended.
- Recommend that soap and ABHR should not be used concomitantly.

For levels of evidence on consensus recommendations please see *WHO Guidelines on hand hygiene in health care* Table 1.2.2 (3).

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ANNEX 1. DATA COLLECTION FORM

Pacific Community
Communauté du Pacifique

Hand hygiene observation – Data Collection Form

Organisation: ______________________

Depart./Ward: ______________________

Date: ______ / _____ / _______

Auditor: ______________________

Start Time: ___________ Finish Time: ___________

Session no: ___________

Five Moments for Hand Hygiene

1. Before touching a patient
2. Before a procedure
3. After a procedure or body fluid exposure risk
4. After touching a patient
5. After touching a patient's surroundings

Notes:

HCW	Moment	Action	Gloves	HCW	Moment	Action	Gloves	HCW	Moment	Action	Gloves
	○ 1 ○ 2 ☐ 3 ☐ 4 ☐ 5	rub wash missed	on off cont.		○ 1 ○ 2 ☐ 3 ☐ 4 ☐ 5	rub wash missed	on off cont.		○ 1 ○ 2 ☐ 3 ☐ 4 ☐ 5	rub wash missed	on off cont.
	○ 1 ○ 2 ☐ 3 ☐ 4 ☐ 5	rub wash missed	on off cont.		○ 1 ○ 2 ☐ 3 ☐ 4 ☐ 5	rub wash missed	on off cont.		○ 1 ○ 2 ☐ 3 ☐ 4 ☐ 5	rub wash missed	on off cont.
	○ 1 ○ 2 ☐ 3 ☐ 4 ☐ 5	rub wash missed	on off cont.		○ 1 ○ 2 ☐ 3 ☐ 4 ☐ 5	rub wash missed	on off cont.		○ 1 ○ 2 ☐ 3 ☐ 4 ☐ 5	rub wash missed	on off cont.
	○ 1 ○ 2 ☐ 3 ☐ 4 ☐ 5	rub wash missed	on off cont.		○ 1 ○ 2 ☐ 3 ☐ 4 ☐ 5	rub wash missed	on off cont.		○ 1 ○ 2 ☐ 3 ☐ 4 ☐ 5	rub wash missed	on off cont.
	○ 1 ○ 2 ☐ 3 ☐ 4 ☐ 5	rub wash missed	on off cont.		○ 1 ○ 2 ☐ 3 ☐ 4 ☐ 5	rub wash missed	on off cont.		○ 1 ○ 2 ☐ 3 ☐ 4 ☐ 5	rub wash missed	on off cont.
	○ 1 ○ 2 ☐ 3 ☐ 4 ☐ 5	rub wash missed	on off cont.		○ 1 ○ 2 ☐ 3 ☐ 4 ☐ 5	rub wash missed	on off cont.		○ 1 ○ 2 ☐ 3 ☐ 4 ☐ 5	rub wash missed	on off cont.
	○ 1 ○ 2 ☐ 3 ☐ 4 ☐ 5	rub wash missed	on off cont.		○ 1 ○ 2 ☐ 3 ☐ 4 ☐ 5	rub wash missed	on off cont.		○ 1 ○ 2 ☐ 3 ☐ 4 ☐ 5	rub wash missed	on off cont.
	○ 1 ○ 2 ☐ 3 ☐ 4 ☐ 5	rub wash missed	on off cont.		○ 1 ○ 2 ☐ 3 ☐ 4 ☐ 5	rub wash missed	on off cont.		○ 1 ○ 2 ☐ 3 ☐ 4 ☐ 5	rub wash missed	on off cont.

Hand Hygiene Australia www.hha.org.au

Total Correct Moments: _______ Total Moments: _______

Adapted from Hand Hygiene Australia

ANNEX 2. CODING CLASSIFICATION SHEET

Hand Hygiene Observation – Coding Classification Sheet

Code:	Type of HCW (HCW)
N	Nurse (Registered/Enrolled), Midwife
DR	Medical Practitioner
PC	Personal Care staff, includes Personal Services Assistant (PSA), Assistant in Nursing (AIN), wardsman, orderly, ward/nursing assistants
AH	Allied Health, includes qualified staff engaged in duties of a diagnostic, or technical nature
D	Domestic, includes staff engaged in the provision of food, cleaning and maintenance services
AC	Administrative and Clerical, includes staff engaged in administrative and clerical duties
BL	Invasive Technician, includes phlebotomists, dialysis technicians etc
SN	Student nurse, includes persons undertaking study to become nurses
SDR	Student Medical Practitioner, includes persons undertaking study to become a medical practitioner
SAH	Student Allied Health, includes persons undertaking study to become an allied health practitioner
SPC	Student Personal Care Staff, includes persons undertaking study to become personal care staff
O	Other, includes persons not categorised elsewhere
AMB	Ambulance workers, patient transport
FC	Family carers (long-term caring)
VHW	Village Health Worker

Code:	Hand Hygiene Action
Rub	HCW used ABHR
Wash	HCW washed hands with soap and water
Missed	Moment for HH observed but not performed

Code:	Glove Use (leave blank if no gloves used)
On	HCW put gloves on
Off	HCW removed gloves
Cont	HCW continued to wear the same pair of gloves

Code:	Moments for Hand Hygiene
1	**Before touching a patient –** Before touching the patient in any way. This indication applies when the HCW enters the patient's immediate surroundings to make contact with him or her. For example, personal care activities, non-invasive observations, non-invasive treatments, preparation and administration of oral medications, oral care and feeding, before touching any invasive medical device connected to the patient. Contact with the patient's surroundings during any of the above.
2	**Before a procedure –** Before performing any procedure where there is a risk of the direct introduction of a disease-causing organism into the patient's body. This indication applies before the insertion of a needle into a patient's skin, or into an invasive medical device. Preparation and administration of any medications given via an invasive medical device. Administration of medications where there is direct contact with a patient's mucous membranes. Insertion of, or disruption to, the circuit of an invasive medical device. Any assessment, treatment and patient care where contact is made with non-intact skin. Preparation of a sterile field.
3	**After a procedure or body fluid exposure risk –** After any procedure or potential or actual body fluid exposure risk exposure - This indication applies at the conclusion of the procedure or after actual or potential exposure of the hands to a body fluid. For example, after a Moment 2 contact, contact with a used urinary bottle / bedpan, with sputum either directly or indirectly via a cup or tissue, contact with used specimen jars / pathology samples, cleaning dentures, cleaning spills of urine, faeces or vomit from patient surroundings, after touching the outside of a drain.
4	**After touching a patient –** After having touched the patient. This indication applies after a HCW has touched a patient, for example, personal care activities, non-invasive observations, non-invasive treatment, preparation and administration of oral medications, oral care and feeding, contact with the patient's surroundings during any of the above.
5	**After touching a patient's surroundings –** After touching the patient's immediate surroundings when the patient has not been touched. This indication applies when the HCW leaves the immediate patient surroundings after having touched any objects. Patient surroundings include – bed, bed rails, linen, table, bedside chart, bedside locker, call bell/TV remote control, light switches, personal belongings, (including books, mobility aids), chair, foot stool. For example, changing bed linen, holding a bed rail, clearing the bedside table.

Adapted from Hand Hygiene Australia

ANNEX 3. WARD SUMMARY SHEET

Pacific Community
Communauté du Pacifique

Hand Hygiene Summary Sheet

Ward:

Session No.	Date	Observer Initials	Duration of Session (mins)	Total Correct Moments	Total Moments	Running Total

Adapted from Hand Hygiene Australia

Hand Hygiene Australia
www.hha.org.au

ANNEX 4. THE RULES FOR AUDITING

The Rules for Auditing

Rules	
Moment 1	**Moment 1** is recorded only once the healthcare worker (HCW) touches the patient.
Moment 2	**Moment 2** is recorded immediately prior to a procedure • Once HH has been performed, nothing in the patient's environment can be touched prior to the procedure starting
Moment 3	**Moment 3** is recorded immediately after a procedure or body fluid exposure risk. • Nothing else should be touched prior to performing hand hygiene. • Touching the outside of a drain or drainage bag (for example, urinary catheter, wound drain, chest tube drain, CSF drain), even when the circuit is not broken, is considered a body fluid exposure risk. • Can be recorded as a stand-alone Moment when there is a body fluid exposure risk, but no patient contact, for example, cleaning a spill of vomit, urine or faeces.
Moment 4	**Moment 4** is recorded after touching the patient. • Touching the patient surroundings after touching the patient is recorded as a single ***Moment 4***. • If after ***Moment 3*** there is touching of the patient surroundings before leaving the patient zone this is recorded as a ***Moment 4***.
Moment 5	**Moment 5** is recorded when the HCW leaves the patient zone after touching the patient's immediate surroundings and the patient has not been touched. • When multiple items in the patient surroundings are touched, only one ***Moment 5*** is recorded.
Notes	
Before/After moments	Generally, for every 'before' Moment there should be an after Moment recorded, unless the auditor does not witness the action. • **Moment 1** is generally followed either by ***Moment 3*** or ***Moment 4***. • **Moment 2** is generally followed by ***Moment 3***. • **Moment 5** is a stand-alone Moment as there is no patient contact. • There are few situations when two 'afters' may be recorded sequentially, however you will never have a ***Moment 1*** and a ***Moment 2*** in a row.
Action missed if not observed	The HCW must be observed to perform HH as they approach the patient. If HH is not observed, it should be recorded as a 'missed' action (that is HH not performed).
Only audit what you observe	No 'before' Moment can be recorded if auditing commences after a HCW is already touching the patient, or in the process of performing a procedure. No 'after' Moment can be recorded unless the Moment is observed.
Curtains	Patient bed curtains ae outside the patient zone and are frequently contaminated. Touching the curtains is equivalent to leaving the patient zone. HH should be performed between touching the curtains and touching the patient, and vice versa.
Double Moments	Two Moments for HH can occur simultaneously, for example, when moving directly from one patient to another without touching anything in between. In this situation, a single HH action covers the two moments for HH, as Moments 4 and 1 coincide. When moving from touching a patient to performing a procedure on that same patient, Moments 4 and 2 coincide. When auditing in either situation, both Moments should be recorded as individual Moments on the data collection form.
When not to record a Moment	HH compliance is audited by HCW compliance with the 5 Moments; it is not audited by a HCW performing a HH action. HH actions not corresponding to a recognised Moment are not recorded. For example, when a HCW walks into a patient's room, does HH and walks out without touching anything. In his case no Moment had occurred, despite HH taking place, so no Moment can be recorded.

Adapted from Hand Hygiene Australia