

Report on Hand Hygiene Compliance in HSE Acute Hospitalsⁱ Period 3, June/July 2012

Executive summary

- **This report summarises the results of the third national hand hygiene audit in 45 acute hospitals (43 public and 2 private). Acute HSE hospitals are required to undertake biannual hand hygiene compliance audits in seven randomly selected wards and observe 30 opportunities per ward. Healthcare workers are observed for their compliance against the WHO's 'Five Moments for Hand Hygiene'. (Appendix 1) Hand hygiene compliance is measured using the national standard operating procedure (SOP) by trained, validated auditors. (Appendix 2)**
- **The overall compliance for Period 3 was 81.6% (Table 1) which represents a significant increase from Period 2 (79.6%) though is less than the target of 85% for 2012. Tables 2-6 summarise compliance by hospital.**
- **The compliances for the different categories of healthcare worker were: nurses/midwives 86.2%, doctors 69%, auxiliary staff ⁱⁱ 79.8% and 'other' healthcare staff ⁱⁱⁱ 84.3% (Table 7 and Figure 2).**
- **When compared with previous audits, there was an significant increase in compliance in Period 3 with moments 1 (before touching a patient) and 4 (after touching the patient) (Table 8 and Figure 3).**
- **Alcohol hand rub accounted for 59.4% of hand hygiene actions (pooled data from three Periods).**

ⁱ Two private hospitals also submitted data, their results are provided in Table 6.

ⁱⁱ Healthcare assistants, porters, catering and household services

ⁱⁱⁱ Physiotherapists, radiologists, dieticians, social workers and pharmacists

- **The HSE has set a target of achieving > 90% compliance with hand hygiene by 2013. To achieve this, healthcare facilities are advised to develop actions plans as outlined in the national SOP including education and training and re-audit to improve compliance. Key areas from this audit that should be targeted for improvement include:**
 - **Hand hygiene before a clean/aseptic procedure (moment 2).**
 - **The need to improve hand hygiene by all healthcare workers, but specifically medical staff.**
 - **Promoting the advantages of alcohol hand rub^{iv} compared to soap and water.**
 - **Access to alcohol hand rub at the point of care (if applicable).**
 - **The need to ensure that all acute hospitals have trained and validated hand hygiene auditors and perform regular hand hygiene audits as per the national SOP.**
 - **General Managers of facilities where compliance is less than 80% need to foster the correct conditions to allow for the required improvements in compliance to be made.**

^{iv} Includes alcohol hand gel or foam

1. Introduction

Hand hygiene is one of the most effective means of reducing the numbers of healthcare associated infections (HCAIs). However, compliance by healthcare workers with recommended hand hygiene opportunities and techniques has been reported as suboptimal.^{1,2} Time constraints, skin integrity, inadequate physical resources (e.g. inadequate number of sinks) and absence of role models have been identified as barriers to compliance with hand hygiene.³ Improved compliance has been reported following education,¹ introduction of alcohol gels/rubs,⁴ audit and feedback,⁵ and local promotion activities.

Measuring hand hygiene compliance by direct observation is described by the World Health Organisation (WHO) as the gold standard.⁶ The national hand hygiene SOP was published in 2011 by the national hand hygiene steering group (<http://www.hpsc.ie/hpsc/A-Z/Gastroenteric/Handwashing/AuditTools/>).

The results from the third national hand hygiene compliance audit in 43 HSE and two private hospitals are presented in this report and comparisons are drawn with data from Periods 1 and 2 (where applicable).

2. Method

The WHO methodology for undertaking hand hygiene observational audits was adopted. National workshops for training lead auditors are held biannually. Each auditor's inter-rater reliability was assessed using the Kappa statistic.^{7,8}

For the national audit in June/July 2012 (Period 3), acute hospitals were required to measure healthcare worker compliance against 30 hand hygiene opportunities for each of the seven randomly selected wards in their facility resulting in 210 opportunities per hospital.

During the audit the information that was collected for each hand hygiene opportunity included:

1. The reason/indication why hand hygiene was required using the WHO's '**Five Moments for Hand Hygiene**'. (Appendix 1)
2. The agent used for hand hygiene; alcohol-based hand rub (AHR) or hand washing using soap and water.

Results were entered into a Microsoft Excel tool and forwarded to the Health Protection Surveillance Centre (HPSC) for analysis. For facilities that submitted more than the required 210 opportunities, the first 30 opportunities per ward were used for the analysis. Facilities that submitted less than 180 opportunities were not included in the analysis. Binomial exact 95% confidence intervals are presented.

While standardised hand hygiene auditor training and validation (with inter-rater reliability testing) should ensure that measurement of hand hygiene should be comparable, the results presented in this report have not been validated by external auditors. It is therefore possible that hand hygiene auditing may not have been performed in a comparable fashion in all hospitals.

3. Results

3.1 Overall Hand Hygiene Compliance in Acute Hospitals

Results from 43 HSE hospitals were analysed for Period 3, an increase from 36 hospitals in Period 1. In total, 8,967 opportunities for hand hygiene were observed; achieving an average compliance of 81.6% (Table 1 and Figure 1). This represents an improvement from previous audits though is below the HSE target of 85% for 2012. The compliance in different HSE facilities ranged from 70.3% to 91% (Tables 1-5 and Figure 1). Compliance data from two private hospitals were submitted for publication in the national report in Period 3 (Table 6).

Table 1: Hand hygiene compliance by HSE regions and private hospitals, and overall compliance for Periods 1 (June 2011), 2 (October 2011) and 3 (June/July 2012)

	Period 3			Period 2		Period 1	
	Hand Hygiene Opportunities	Hand Hygiene Actions	Percent Compliance	Lower 95% Confidence Interval	Upper 95% Confidence Interval	Percent Compliance	Percent Compliance
HSE - South	1,883	1,520	80.7%	78.9%	82.5%	79.7%	75.7%
HSE - Dublin North-East	1,889	1,568	83.0%	81.2%	84.7%	80.1%	75.8%
HSE - Dublin Mid-Leinster	3,143	2,600	82.7%	81.4%	84.0%	79.6%	79.1%
HSE - West	2,052	1,628	79.3%	77.5%	81.1%	78.9%	68.3%
Overall	8,967	7,316	81.6%	80.8%	82.4%	79.6%	74.7%

Table 2: Hand hygiene compliance by individual acute hospitals in HSE – South for Periods 1 (June 2011), 2 (October 2011) and 3 (June/July 2012)

	Period 3			Period 2		Period 1	
	Hand Hygiene Opportunities	Hand Hygiene Actions	Percent Compliance	Lower 95% Confidence Interval	Upper 95% Confidence Interval	Percent Compliance	Percent Compliance
Bantry General Hospital	204	168	82.4%	76.4%	87.3%	77.0%	69.0%
Cork University Hospital ¹							
Kerry General Hospital, Tralee	210	172	81.9%	76.0%	86.9%	80.5%	82.4%
Mallow General Hospital	210	180	85.7%	80.2%	90.1%	81.4%	77.1%
Mercy University Hospital, Cork	210	189	90.0%	85.1%	93.7%	85.7%	76.2%
South Infirmary - Victoria University Hospital, Cork ²	210	169	80.5%	74.5%	85.6%	71.4%	
South Tipperary General Hospital, Clonmel	210	182	86.7%	81.3%	91.0%	72.9%	71.9%
St Luke's General Hospital, Kilkenny ³	210	150	71.4%	64.8%	77.4%	85.7%	82.4%
Waterford Regional Hospital	210	163	77.6%	71.4%	83.1%	82.9%	86.1%
Wexford General Hospital	209	147	70.3%	63.6%	76.4%		59.2%

1 - No data for Period 1, Period 2 and Period 3; 2 - No data for Period 1; 3 - Incorporating Kilcreene Orthopaedic Hospital;

4 - No data for Period 2

Table 3: Hand hygiene compliance by individual acute hospitals in HSE – Dublin North-East for Periods 1 (June 2011), 2 (October 2011) and 3 (June/July 2012)

	Period 3			Period 2		Period 1
	Hand Hygiene Opportunities	Hand Hygiene Actions	Percent Compliance	Lower 95% Confidence Interval	Upper 95% Confidence Interval	Percent Compliance
Beaumont Hospital ¹	210	159	75.7%	69.3%	81.4%	79.3%
Cappagh National Orthopaedic Hospital, Dublin	210	191	91.0%	86.2%	94.5%	71.4%
Cavan General Hospital	210	156	74.3%	67.8%	80.1%	80.0%
Connolly Hospital, Blanchardstown	210	188	89.5%	84.6%	93.3%	85.7%
Louth County Hospital, Dundalk	210	189	90.0%	85.1%	93.7%	85.7%
Mater Misericordiae University Hospital	210	164	78.1%	71.9%	83.5%	73.3%
Our Lady of Lourdes Hospital, Drogheda	210	175	83.3%	77.6%	88.1%	79.5%
Our Lady's Hospital, Navan	209	171	81.8%	75.9%	86.8%	79.5%
Rotunda Hospital	210	175	83.3%	77.6%	88.1%	86.7%

1 - No data for Period 1

Table 4: Hand hygiene compliance by individual acute hospitals in HSE – Dublin Mid-Leinster for Periods 1 (June 2011), 2 (October 2011) and 3 (June/July 2012)

	Period 3			Period 2		Period 1
	Hand Hygiene Opportunities	Hand Hygiene Actions	Percent Compliance	Lower 95% Confidence Interval	Upper 95% Confidence Interval	Percent Compliance
Children's University Hospital, Temple Street ¹	210	159	75.7%	69.3%	81.4%	83.3%
Coombe Women's Hospital	209	169	80.9%	74.9%	86.0%	82.4%
Midland Regional Hospital Mullingar	210	158	75.2%	68.8%	80.9%	75.7%
Midland Regional Hospital Portlaoise	210	166	79.0%	72.9%	84.3%	70.5%
Midland Regional Hospital Tullamore	210	168	80.0%	73.9%	85.2%	67.1%
Naas General Hospital	210	179	85.2%	79.7%	89.7%	78.1%
National Maternity Hospital, Holles Street ¹	210	188	89.5%	84.6%	93.3%	72.4%
Our Lady's Hospital for Sick Children, Crumlin ¹	210	186	88.6%	83.5%	92.5%	86.7%
Royal Victoria Eye & Ear Hospital, Dublin ¹	210	181	86.2%	80.8%	90.6%	78.1%
St Columcille's Hospital, Loughlinstown	210	174	82.9%	77.1%	87.7%	73.8%
St James's Hospital	209	190	90.9%	86.2%	94.4%	87.6%
St Luke's Hospital, Dublin	210	180	85.7%	80.2%	90.1%	86.7%
St Michael's Hospital, Dun Laoghaire	205	176	85.9%	80.3%	90.3%	81.4%
St Vincent's University Hospital	210	174	82.9%	77.1%	87.7%	89.5%
Tallaght Hospital ¹	210	152	72.4%	65.8%	78.3%	81.0%

1 - No data for Period 1

Table 5: Hand hygiene compliance by individual acute hospitals in HSE – West for Periods 1 (June 2011), 2 (October 2011) and 3 (June/July 2012)

	Period 3			Period 2		Period 1
	Hand Hygiene Opportunities	Hand Hygiene Actions	Percent Compliance	Lower 95% Confidence Interval	Upper 95% Confidence Interval	Percent Compliance
Galway University Hospitals ¹	210	175	83.3%	77.6%	88.1%	76.7%
Letterkenny General Hospital	209	160	76.6%	70.2%	82.1%	77.6%
Mayo General Hospital, Castlebar	210	160	76.2%	69.8%	81.8%	69.4%
Mid-Western Regional Hospital Ennis	179	161	89.9%	84.6%	93.9%	88.5%
Mid-Western Regional Hospital Nenagh	210	182	86.7%	81.3%	91.0%	79.0%
Mid-Western Regional Hospitals ²	210	163	77.6%	71.4%	83.1%	83.8%
Portlincula Hospital, Ballinasloe	210	154	73.3%	66.8%	79.2%	70.5%
Roscommon County Hospital	210	154	73.3%	66.8%	79.2%	72.2%
Sligo General Hospital	200	151	75.5%	68.9%	81.3%	89.0%
St John's Hospital, Limerick	204	168	82.4%	76.4%	87.3%	81.4%

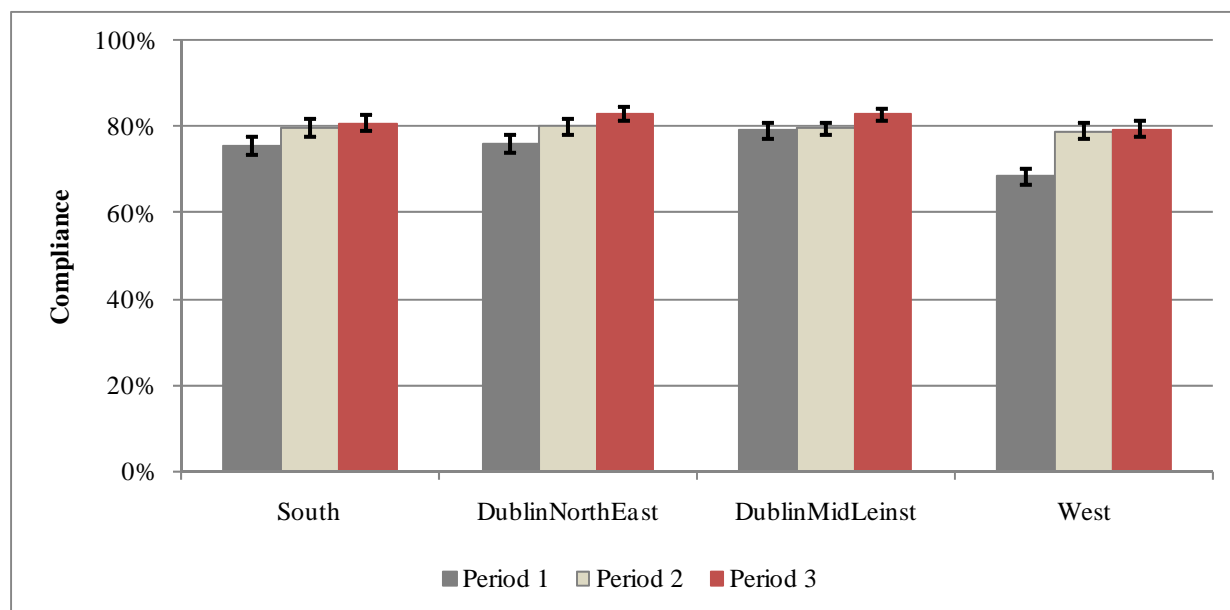
1 -Incorporating Merlin Park Regional Hospital, Galway;

2 -Incorporating Limerick Regional, Maternity and Croom Orthopaedic Hospitals; compliance in Period 1 applies to Limerick Regional Hospital only. No data from Limerick Maternity or Croom Orthopaedic Hospitals in Period 1.

Table 6: Hand hygiene compliance by individual acute private hospitals for Period 3

	Period 3			Period 2		Period 1
	Hand Hygiene Opportunities	Hand Hygiene Actions	Percent Compliance	Lower 95% Confidence Interval	Upper 95% Confidence Interval	Percent Compliance
Blackrock Clinic ¹	210	185	88.1%	82.9%	92.1%	
Mater Private ¹	210	199	94.8%	90.8%	97.4%	

1 - No data from private hospitals prior to Period 3

Figure 1: Hand hygiene compliance by HSE regions, for Periods 1 (June 2011), 2 (October 2011) and 3 (June/July 2012) including 95% confidence intervals

3.2 Hand Hygiene Compliance by Healthcare Worker Category in HSE Facilities

The compliance for the different categories of healthcare workers in Period 3 was: nurses/midwives 86.2%, doctors 69 %, auxiliary staff ^v 79.8% and ‘other’ ^{vi} healthcare staff 84.3% (Table 7 and Figure 2). When compared with Period 2, an increase in compliance was reported for three staff categories (nurse/midwives, medical and auxiliary), with the increase significant for nurses/midwives. Compliance by the ‘other’ staff category decreased compared to the Period 2, but the decrease was not significant.

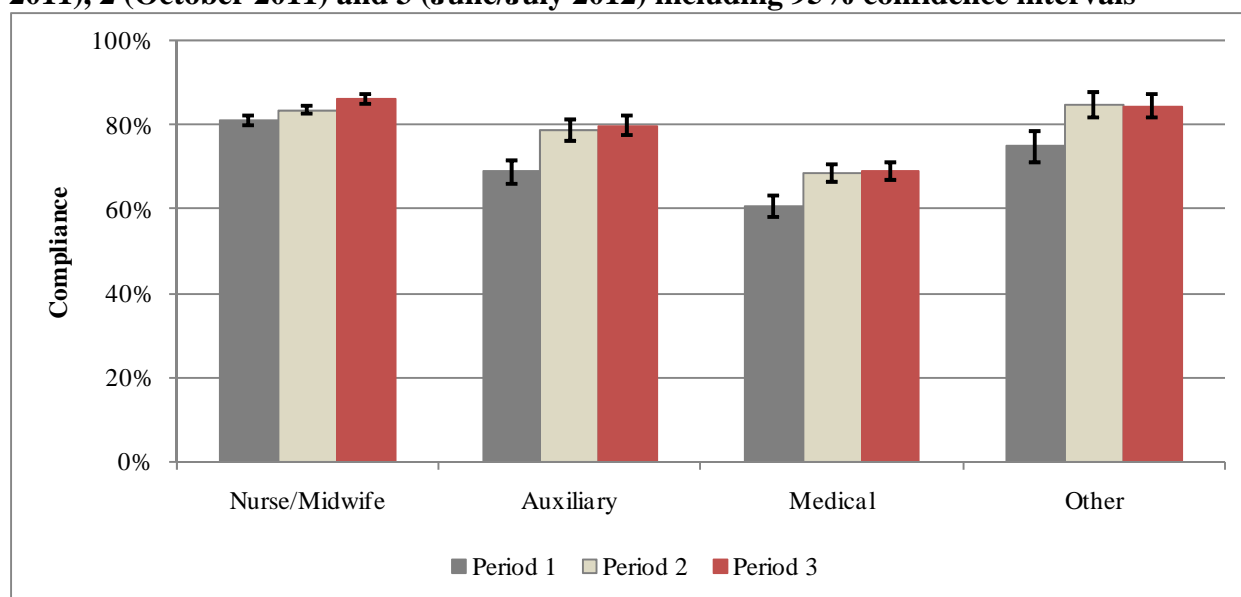
^v Healthcare assistants, porters, catering and household services

^{vi} Physiotherapists, radiologists, dieticians, social workers and pharmacists

Table 7: Hand hygiene compliance by healthcare worker category for Periods 1 (June 2011), 2 (October 2011) and 3 (June/July 2012)

	Period 3					Period 2	Period 1
	Hand Hygiene Opportunities	Hand Hygiene Actions	Percent Compliance	Lower 95% Confidence Interval	Upper 95% Confidence Interval	Percent Compliance	Percent Compliance
Nurse/Midwife	5,176	4,460	86.2%	85.2%	87.1%	83.5%	81.0%
Auxiliary	1,349	1,076	79.8%	77.5%	81.9%	78.7%	68.8%
Medical	1,823	1,258	69.0%	66.8%	71.1%	68.4%	60.7%
Other	619	522	84.3%	81.2%	87.1%	84.6%	74.9%

Figure 2: Hand hygiene compliance by healthcare worker category for Periods 1 (June 2011), 2 (October 2011) and 3 (June/July 2012) including 95% confidence intervals



3.3 Compliance with the Five Moments of Hand Hygiene in HSE Facilities

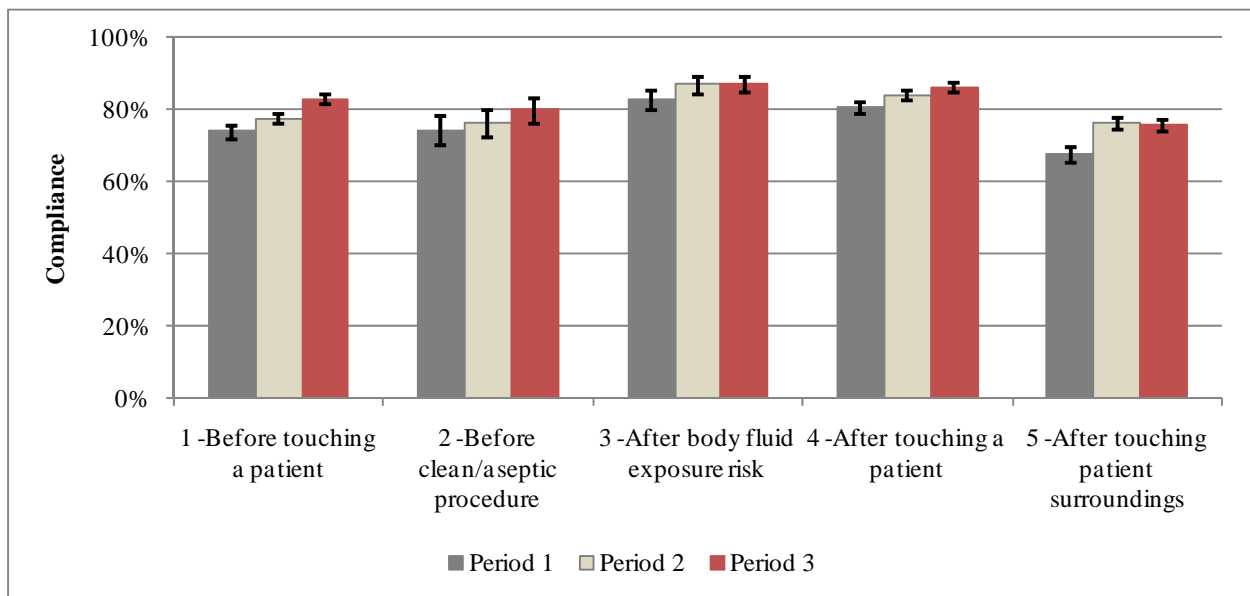
Hand hygiene compliance with the ‘Five Moments for Hand Hygiene’ (Appendix 1) is outlined in Table 7 and Figure 3. When compared with Period 2, an increase in compliance was reported for four of the five moments (1, 2, 3 and 4), with the increase significant for moments 1 and 4. Compliance with moment 5 at 75.5% decreased compared to the Period 2, but the decrease was not significant. Moment 3 recorded the highest compliance at 86.9%.

Table 7: Hand hygiene compliance by the WHO 5 moments for Periods 1 (June 2011), 2 (October 2011) and 3 (June/July 2012)

	Period 3				Period 2		Period 1
	Hand Hygiene Opportunities	Hand Hygiene Actions	Percent Compliance	Lower 95% Confidence Interval	Upper 95% Confidence Interval	Percent Compliance	Percent Compliance
Moment 1	2,364	1,959	82.9%	81.3%	84.4%	77.4%	73.8%
Moment 2	510	407	79.8%	76.1%	83.2%	76.2%	74.1%
Moment 3	877	762	86.9%	84.5%	89.1%	86.8%	82.5%
Moment 4	3,287	2,828	86.0%	84.8%	87.2%	83.9%	80.4%
Moment 5	2,756	2,082	75.5%	73.9%	77.1%	76.0%	67.4%

Moment 1: Before touching a patient; Moment 2: Before clean/aseptic procedure; Moment 3: After body fluid exposure risk; Moment 4: After touching a patient; Moment 5: After touching patient surroundings

Figure 3: Hand hygiene compliance by the WHO 5 moments for Periods 1 (June 2011), 2 (October 2011) and 3 (June/July 2012) including 95% confidence intervals



3.4 Type of Hand Hygiene Agent Used By Healthcare Workers (Pooled data from Period 1 (June 2011), 2 (October 2011) and 3 (June/July 2012))

Of the 25,248 opportunities for the three combined Periods in HSE facilities, 19,902 (78.8%) were compliant. AHR at 59.4% (11,816) was the preferred method for hand hygiene compared with washing with soap and water at 40.6% (8,086). Inadequate access to AHR at the point of care and a lack of awareness of the benefits of AHR compared to soap and water may contribute to the high level of hand washing reported.

4. Limitations of Auditing Hand Hygiene with Direct Observation

The results as presented may not be reflective of healthcare worker compliance at all times. Compliance with hand hygiene is measured by trained, validated auditors observing healthcare workers undertaking patient care. It is well recognised that workers will change their behaviour if aware that they are being observed (Hawthorne effect). However, it is also known that this effect wears off over time and that healthcare workers under observation may not be aware (due to the many competing demands on their attention) of the presence of the auditor. In addition, the purpose of auditing is to improve practice, therefore any action that improves compliance increases patient safety. Auditors are requested to give immediate feedback to ward staff following an audit, thereby increasing awareness and knowledge of hand hygiene.

All auditors measured compliance in the facility in which they work; therefore there may be an element of bias in the results. This risk of bias should be balanced by the benefits of increasing local staff knowledge and awareness of hand hygiene.

The sample size per hospital (210 opportunities) has a margin of error of 7%. A larger sample size would provide proportions with a narrower margin of error especially at ward level. However, hand hygiene auditing is very labour intensive and without dedicated auditors, the time allocated must be balanced against other service needs.

The duration of, and the technique for hand hygiene, which are important elements of good practice were not measured as a mandatory component of this audit in line with the WHO protocol.

5. Conclusions

The overall compliance was 81.6% which is below the HSE target of 85% for 2012 but has increased from 79.6% in Period 2.⁹ Nurse/Midwives and the 'other' staff group (primarily allied health professionals) achieved the highest compliances (86.2% and 84.3% respectively) with medical staff (69%) and the 'auxiliary' group (79.8%) recording lower compliances. The WHO's 'Five Moments for Hand Hygiene' define when healthcare workers should decontaminate their hands when undertaking care at the bedside. Moment 3 (after body fluid exposure risk) and moment 4 (after touching a patient) achieved the highest compliances (86.9% and 86% respectively), with moment 5 achieving the lowest at 75.5%. Healthcare workers' compliance with moments 3 and 4 have been consistently reported as higher compared to moments 1, 2 and 5.¹⁰⁻¹³ While the reason for this has not been fully explained, it may be that healthcare workers perceive their hands to be at greater risk of being contaminated after contact with body fluids and patients. Determining compliance by the 'Five Moments for Hand Hygiene' and by staff categories allows facilities to target educational and promotional activities where they are most needed to improve patient safety.

AHR was the preferred method used for hand hygiene for 59.4% of hand hygiene actions. This is consistent with international best practice as AHR is faster, more effective at reducing bacterial counts and kinder to skin compared to plain or antiseptic soap and water.⁶ However, the WHO recommends that AHR is used for at least 80% of hand hygiene actions.¹⁴ Facilities should ensure that staff have access to AHR at the point of care and promote the advantages of AHR during staff training and education.

There are many factors that can contribute to improving healthcare workers hand hygiene compliance including improved infrastructure, increased awareness through education, audit and feedback, support from senior management/clinicians and an informed patient population.^{5,6} A multimodal strategy is recommended by the WHO to improve hand hygiene compliance including system change, training and education, evaluation and feedback, and institutional safety.¹⁵

6. Recommendations

Improving hand hygiene compliance to greater than 90% by 2013 in acute hospitals will require commitment from all HSE staff and consideration should be given to implementing the WHO multi-model strategy in all facilities

(http://www.who.int/gpsc/5may/Guide_to_Implementation.pdf).

Key areas highlighted in Period 3 audit that should be targeted for improvement include:

- Hospitals should ensure that a hand hygiene training and audit programme is in place and that an action plan is developed for each ward/unit in which the hand hygiene compliance is less than the nationally set target (85% in 2012). Hand hygiene compliance should be monitored on a regular basis and results fed back widely to all hospital staff and presented at senior management team meetings.
- Hand hygiene before a clean/aseptic procedure (moment 2) was 79.8% during Period 3, but needs to improve. Inadequate hand hygiene before these procedures can result in healthcare-acquired infection and potential morbidity and mortality.
- On the basis of the results of the previous three audits, hand hygiene education should focus on medical staff (but not to the exclusion of other groups) and the advantages of using AHR compared to soap and water.
- All hospitals should ensure that they have a trained lead auditor to perform hand hygiene audits in a standardised fashion to enable comparisons within the hospital to be made over time.

Hospital hand hygiene programmes must be supported by senior hospital managers and clinical leaders to ensure implementation of national and international best practice hand hygiene guidelines. Hand hygiene auditing is resource intensive and provision of those resources must remain a priority.

Acknowledgements

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References

- (1) Creedon SA. Healthcare workers' hand decontamination practices: compliance with recommended guidelines. *J Adv Nurs* 2005; 51(3):208-216.
- (2) Creedon SA. Hand hygiene compliance: exploring variations in practice between hospitals. *Nurs Times* 2008; 104(49):32-35.
- (3) Barrett R, Randle J. Hand hygiene practices: nursing students' perceptions. *J Clin Nurs* 2008; 17(14):1851-1857.
- (4) Zerr DM, Allpress AL, Heath J, Bornemann R, Bennett E. Decreasing hospital-associated rotavirus infection: a multidisciplinary hand hygiene campaign in a children's hospital. *Pediatr Infect Dis J* 2005; 24(5):397-403.
- (5) Pittet D, Hugonnet S, Harbarth S, Mourouga P, Sauvan V, Touveneau S et al. Effectiveness of a hospital-wide programme to improve compliance with hand hygiene. Infection Control Programme. *Lancet* 2000; 356(9238):1307-1312.
- (6) World Health Organisation. WHO Guidelines on Hand Hygiene in Healthcare . 2009. Accessed 12-5-2010. <http://www.who.int/gpsc/5may/tools/en/index.html>
- (7) Donner A RMA. Sample size requirements for interval estimation of the Kappa statistic for interobserver agreement studies with a binary outcome and multiple raters. *The International Journal of Biostatistics* 2010; 6(1):1-11.
- (8) Sim J, Wright CC. The kappa statistic in reliability studies: use, interpretation, and sample size requirements. *Phys Ther* 2005; 85(3):257-268.
- (9) Health Protection Surveillance Centre. Report on hand hygiene compliance in Period 2 in HSE acute hospitals; October 2011. Accessed 10-10-2012. <http://www.hpsc.ie/hpsc/A-Z/Gastroenteric/Handwashing/HandHygieneAudit/HandHygieneAuditResults/File,13263,en.pdf>
- (10) Health Protection Surveillance Centre. Report on hand hygiene compliance in HSE acute hospitals: Period 1 2011. Accessed 10-2-2012. <http://www.hpsc.ie/hpsc/A-Z/Gastroenteric/Handwashing/HandHygieneAudit/HandHygieneAuditResults/File,12945,en.pdf>
- (11) Hand Hygiene Australia. Hand hygiene results: national data period 1 2011. 2011. Accessed 14-9-2011. <http://www.hha.org.au/national-data-Period-one-2011.aspx>

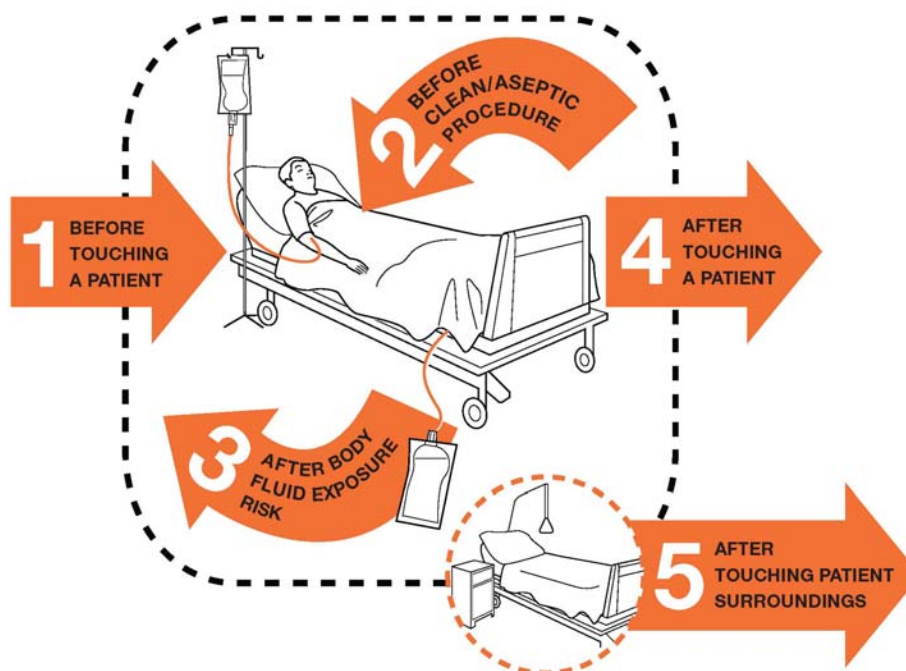
- (12) Health Protection Scotland. National Hand Hygiene NHS Campaign: Compliance with hand hygiene - 2nd audit report. 2008. Accessed 10-9-2011.
<http://www.documents.hps.scot.nhs.uk/hai/infection-control/national-hand-hygiene-campaign/audit-report-2008-04-17.pdf>

- (13) Hand Hygiene Australia. National hand hygiene data; Period 2. 2012. Accessed 20/10/2012. <http://www.hha.org.au/LatestNationalData.aspx>

- (14) World Health Organisation. Hand hygiene self-assessment framework. 2010. Accessed 10-10-2012. http://www.who.int/gpsc/country_work/hhsa_framework.pdf

- (15) World Health Organisation. A guide to the implementation of the WHO multi-model hand hygiene improvement strategy. 2009. Accessed 14/09/2011.
http://www.who.int/gpsc/5may/Guide_to_Implementation.pdf

Your 5 Moments for Hand Hygiene



1	BEFORE TOUCHING A PATIENT	WHEN?	Clean your hands before touching a patient when approaching him/her.
		WHY?	To protect the patient against harmful germs carried on your hands.
2	BEFORE CLEAN/ASEPTIC PROCEDURE	WHEN?	Clean your hands immediately before performing a clean/aseptic procedure.
		WHY?	To protect the patient against harmful germs, including the patient's own, from entering his/her body.
3	AFTER BODY FLUID EXPOSURE RISK	WHEN?	Clean your hands immediately after an exposure risk to body fluids (and after glove removal).
		WHY?	To protect yourself and the health-care environment from harmful patient germs.
4	AFTER TOUCHING A PATIENT	WHEN?	Clean your hands after touching a patient and her/his immediate surroundings, when leaving the patient's side.
		WHY?	To protect yourself and the health-care environment from harmful patient germs.
5	AFTER TOUCHING PATIENT SURROUNDINGS	WHEN?	Clean your hands after touching any object or furniture in the patient's immediate surroundings, when leaving – even if the patient has not been touched.
		WHY?	To protect yourself and the health-care environment from harmful patient germs.



World Health Organization

Patient Safety
A World Alliance for Safer Health Care

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Appendix 2: Membership of the Hand Hygiene Steering Group

- Dr Michael Mulhern: Consultant Microbiologist, Letterkenny General Hospital (Chair)
- Ms. Michelle Bergin: Infection Prevention and Control Nurse, Midland Regional Hospital Tullamore; representing the Infection Prevention Society
- Ms Sheila Donlon: Infection Control Manager Health Protection Surveillance Centre
- Dr Susan FitzGerald: Consultant Microbiologist, St Vincent's University and St. Columcille's Hospitals; representing the Irish Society of Clinical Microbiologists
- Dr Fidelma Fitzpatrick: RCPI /HSE HCAI clinical lead and Consultant Microbiologist, Beaumont Hospital & HPSC
- Ms Maire Flynn: Infection Prevention and Control Nurse, Kerry Community Services; Representing the Infection Prevention Society
- Dr. Aliya Khan: SpR in Clinical Microbiology, Beaumont Hospital, Dublin
- Mr. Ajay Oza: Surveillance Scientist, Health Protection Surveillance Centre
- Ms Mary Francis Reilly: Director. NMPDU, Merlin Park, Regional Hospital, Galway; Office of the Nursing Director
- Ms Maura Smiddy: Lecturer, Dept Epidemiology and Public Health, University College Cork
- Ms Margaret Nadin: Project Manager - Chronic Illness, Nurse/Midwife Practice Development HSE Dublin North East

The national hand hygiene standard operating procedure (SOP) can be assessed her

<http://www.hpsc.ie/hpsc/A-Z/Gastroenteric/Handwashing/AuditTools/>