



National Infection Prevention and Control Programme Hand Hygiene New Zealand National Hand Hygiene Compliance Audit: March 2013

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National hand hygiene compliance data March 2013

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National hand hygiene compliance data: 01 November 2012 to 31 March 2013

The national compliance rate for this audit period is **66.6%**.

| Correct hand hygiene actions | Total moments | Compliance rate | Lower 95% confidence interval | Upper 95% confidence interval |
|------------------------------|---------------|-----------------|-------------------------------------|-------------------------------------|
| 20119 | 30196 | 66.6% | 66.1% | 67.2% |

National compliance rates by district health board

The data in Table 1 shows anonymised results for individual DHBs to allow DHBs to determine how they compare to others. It is important to note that not all DHBs are at the same stage of implementation. In this audit period all 20 DHBs once again submitted data to the hand hygiene compliance database.

Table 1. Moments and compliance rates per DHB for 01 November 2012 to 31 March 2013

| DHB | 01 November 2012 to 31 March 2013 Compliance (%) | Lower 95% confidence interval (%) | Upper 95% confidence interval (%) |
|-----|---|-----------------------------------|---|
| 1 | 75% | 73% | 77% |
| 2 | 74% | 71% | 77% |
| 3 | 73% | 71% | 75% |
| 4 | 73% | 70% | 76% |
| 5 | 73% | 71% | 75% |
| 6 | 72% | 70% | 74% |
| 7 | 70% | 68% | 71% |
| 8 | 68% | 61% | 74% |
| 9 | 66% | 61% | 70% |
| 10 | 65% | 63% | 67% |
| 11 | 65% | 62% | 68% |
| 12 | 64% | 61% | 67% |
| 13 | 64% | 56% | 72% |
| 14 | 62% | 59% | 65% |
| 15 | 62% | 60% | 64% |
| 16 | 62% | 60% | 64% |
| 17 | 60% | 58% | 62% |
| 18 | 59% | 57% | 61% |
| 19 | 55% | 51% | 58% |
| 20 | 54% | 45% | 63% |

Comparison with previous audit period

Improvements since October 2012:

- Seven DHBs achieved 70% or greater compared to five in October 2012
- Every DHB achieved greater than 50% compared to only 18 DHBs in October 2012
- Nine out of 11 healthcare worker groups improved upon their last audit
- Reduction in missed hand hygiene moments while putting gloves on
- 12 DHBs improved upon their last audit, five DHBs by greater than 10%.

The graph below demonstrates the comparison between the March 2013 and October 2012 hand hygiene compliance data.

National compliance rates by each of the World Health Organization (WHO) 5 moments for hand hygiene (Table 2 and Figure 1 – see next page)

Compliance with each of the five moments has increased during this audit period. Particularly pleasing is the 6% increase in the 'before touching a patient' moment (moment 1) and a 5% increase with the 'before a procedure' moment (moment 2), this suggests that healthcare workers are starting to improve hand hygiene practice before these activities.

Compliance with moments 3 and 4 (the 'after moments') is still significantly higher than moments 1 and 2 (the 'before moments') receive. This is a well described phenomenon and may partly be explained by a widely held misunderstanding among healthcare workers that the primary purpose of hand hygiene is for self protection rather than for the safety of patients. The importance of hand hygiene to improve patient safety is thus still one of the key educational messages for the HHNZ programme.

Table 2. Compliance rate by moment 01 November 2012 to 31 March 2013

| Moment | Correct hand hygiene actions | Total moments | Compliance rate | Lower 95% confidence interval | Upper 95% confidence interval |
|--|---------------------------------------|------------------|--------------------|-------------------------------------|-------------------------------------|
| 1. Before touching a patient | 5431 | 8782 | 61.8% | 60.8% | 62.8% |
| 2. Before a procedure | 1506 | 2489 | 60.5% | 58.6% | 62.4% |
| 3. After a procedure or body fluid exposure risk | 2558 | 3498 | 73.1% | 71.6% | 74.6% |
| 4. After touching a patient | 6909 | 9310 | 74.2% | 73% | 75.1% |
| 5. After touching a patient's surroundings | 3715 | 6117 | 60.7% | 59.5% | 61.9% |



Figure 1: Compliance rate by moment 01 November 2012 to 31 March 2013

National compliance rates by healthcare worker category (Table 3 and Figure 2 – see next page)

Every healthcare worker category has improved with the exception of allied health and administration. It is encouraging to see student rates improve and this suggests that students are receiving information about hand hygiene as part of their orientation into their specific healthcare placements.

Medical practitioners continue to have low compliance results (57%). The difficulty with capturing this healthcare worker group is that they are assigned in small numbers to their clinical areas and are not easy to capture as a group for education. Reaching this influential group is a strategic focus for HHNZ going forward. Innovative strategies need to be developed to target medical staff and to ensure that compliance is improved.

Table 3. Compliance by Healthcare Worker 01 November 2012 to 31 March 2013

| Name | Correct moments | Total moments | Compliance rate | Lower confidence interval | Upper confidence interval |
|-----------------------------------|--------------------|------------------|--------------------|---------------------------------|---------------------------------|
| Invasive technician | 796 | 1090 | 73% | 70% | 76% |
| Healthcare assistant | 1375 | 1969 | 70% | 68% | 72% |
| Nurse/midwife | 12969 | 18687 | 69% | 69% | 70% |
| Student nurse/midwife | 752 | 1098 | 69% | 66% | 71% |
| Student allied health | 40 | 60 | 67% | 54% | 77% |
| Allied healthcare worker | 954 | 1442 | 66% | 64% | 69% |
| Domestic | 295 | 490 | 60% | 56% | 64% |
| Medical practitioner | 2605 | 4599 | 57% | 55% | 58% |
| Administrative and clerical staff | 22 | 41 | 54% | 39% | 68% |
| Student doctor | 62 | 132 | 47% | 39% | 55% |
| Other - Not categorised elsewhere | 249 | 588 | 42% | 38% | 46% |

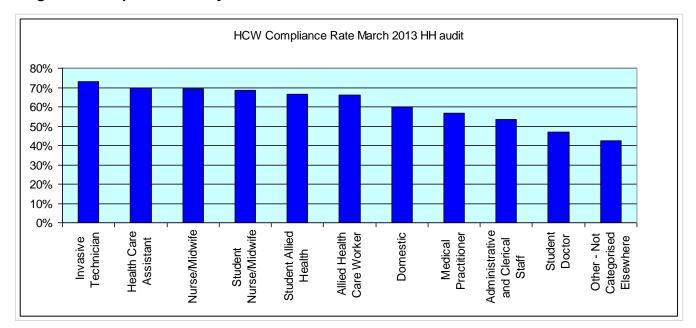


Figure 3: Compliance rate by healthcare worker 01 November 2012 to 31 March 2013

Glove usage

When hand hygiene compliance auditing commenced in New Zealand, glove usage data was not actively collected. Now with all training, auditors are asked to collect glove data as it is becoming more apparent that misuse of gloves for self protection is a barrier to good hand hygiene practice. Education about glove use is provided via gold auditor training sessions and written communication. The key message is that gloves are not a substitute for hand hygiene.

The most recent glove usage statistics are encouraging with a reduction of 7% of missed hand hygiene when putting gloves on since the last audit period.

Because healthcare workers increased their compliance with moments one and two (before touching a patient and before a procedure) it is a natural consequence then for a reduction in misuse of gloves to follow.

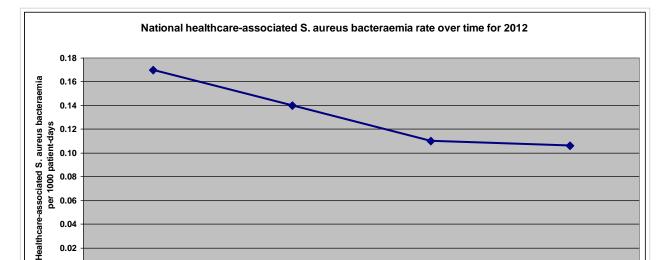
Latest glove useage statistics are:

- When gloves are taken OFF, the proportion of Moments that were MISSED is: 15.4%
- When gloves are put ON, the proportion of Moments that were MISSED is: 36.7%.

National rate of healthcare-associated Staphylococcus aureus bacteraemia

During 2012 the rate of healthcare associated *Staphylococcus aureus* bacteraemia was submitted consistently by 15 of the 20 DHBs using the HHNZ system for collecting and submitting this data. For these 15 DHBs, the downward trend in the average rate during 2012 is shown in the graph below.

Because collecting this data requires clinical documentation to be complete, DHBs have been asked to submit this data one month after the submission date for the audit data. For this audit period we are expecting DHBs to submit their *Staphylococcus aureus* bacteraemia data the second week of May.



Quarterly time period

July - October

Nov - Dec

April June

Figure 4. Staphylococcus aureus bacteraemia rate over time 2012

0.00

Jan - March