

Summary Report from Pilot of Patient Equipment and Environment Compliance Monitoring Tool

Background

Poor compliance with decontamination of reusable communal patient care equipment is an issue regularly highlighted in HEI inspections. Recent HEI reports highlight continual issues around beds, including their mattresses, bedrails, commodes and buzzers.¹ In addition, other items of patient equipment remain problematic with reports of dirty equipment; such as fans, IV stands and blood pressure monitors.

All near patient care equipment should be decontaminated before and after it is used and there should be a managed environment that minimises the risk of infection to service users, staff and visitors. The Senior Charge Nurse (SCN), Department Manager, Clinical Team Leaders etc are all responsible for ensuring compliance monitoring takes place. SCNs are ultimately responsible for their ward environment including the cleanliness of both equipment and environment as outlined by the Scottish Executive Health Department in NHS HDL (2005) 7.²

Currently, there is an existing compliance monitoring tool available as a supportive tool to the National Infection Prevention and Control Manual (i.e. not mandatory) but it is not included or linked to in the Manual. This tool focuses on whether staff clean appropriately, e.g. use the correct cleaning equipment, rather than a visual inspection of the equipment, e.g. to see whether it has been cleaned effectively.

To address the continual issues raised in HEI inspections and provide an assurance for patient safety a patient equipment and environment compliance monitoring tool was devised by HPS and reviewed by the Expert Decontamination Steering Group to establish if the items listed within the devised tools were sufficient.

Following agreement by the Expert Decontamination Steering Group a study methodology was developed.

A tool was devised to:

- monitor the outcome of standards of cleaning of patient equipment and the near patient environment;
- be used by all disciplines of staff working to support a record of equipment/environment cleaning compliance monitoring within clinical areas/departments;
- be used by the SCN/Departmental manager to assist with change management by addressing organisational re-occurring issues; and
- provide a record of evidence for compliance with quality improvement for standards in decontamination for high risk patient equipment and the near patient environment on HEI inspection visits.

The aim of the study was to evaluate the use of a devised compliance quality improvement monitoring tool for patient equipment/environment cleaning for NHS boards.

Population

Testing of the methodology was undertaken in 1 hospital in 3 wards by the SCN. The Senior Prevention and Control of Infection Nurse and Improvement Advisor for the hospital was responsible for the selection of the wards and supporting the SCN. The wards selected included a coronary care unit, orthopaedic ward and a surgical ward. The methodology was adjusted according to feedback from those undertaking the testing.

A minimum of 3 NHS boards were required for recruitment for the study. Invitation to participate was requested via the Infection Control Network. A total of 5 NHS boards offered to participate in the study, NHS Lothian, Grampian, Lanarkshire, Borders and the Golden Jubilee National Hospital covering a range of different types of ward, e.g. medical, surgical, renal, day surgery gynaecology, maternity. Each NHS Board was asked to test the tools in one medical ward, one surgical ward and one specialist ward each week for a period of 4 weeks.

Compliance Monitoring

Measurement of compliance monitoring was undertaken by:

1. Visually checking and recording the number of critical equipment/environment listed that were available in the ward and from those checked the staff recording how many were visually clean.

2. The staff selecting any 5 pieces of equipment for the patient equipment other listing and checking for cleanliness, varying the selection weekly.

The compliance rate percentage was calculated, following the provided formula.

Evaluation

A qualitative evaluation form was provided for the SCN/ Midwife, Department Manager, Clinical Team Leaders or their deputy in each ward to complete following week 4 of the study.

The evaluation aimed to assess the 2 compliance monitoring tools:

- for effectiveness in the process; and
- to determine if the tools were suitable for use in the clinical areas (outcome effectiveness).

To gain an understanding if the tools use and content was affected by ward type/category the clinical areas were asked to specify their ward category details, e.g. medical, surgical, and specify their speciality, e.g. maternity, renal.

The SCN/Departmental Manager was asked to provide written feedback on how easy the tools were to use and if they felt that the tools listed the key specifications for a generic compliance monitoring tool.

Staff were asked if they found the tool useful for compliance monitoring. If they did not find it useful then they were asked for the reasons and what their current processes were to gain an insight into any improvements that may be required.

Evaluation Analysis

The evaluation returns by NHS Board/Clinical Speciality were reviewed and:

- The actual number of NHS boards that participated in the pilot was examined.
- Each pilot ward was then classified by medical, surgical and speciality category for each NHS Board.
- The pilot completion period by NHS Board for each clinical area was reviewed against the 4 week expected pilot period to define pilot completion by NHS Board/pilot period.

- To assess the tools process and outcome efficiency the responses were then classified by positive/ negative feedback with further additional responses collated for consideration for the tools improvement.

Results

Pilot Completion by NHS Board/Pilot Period

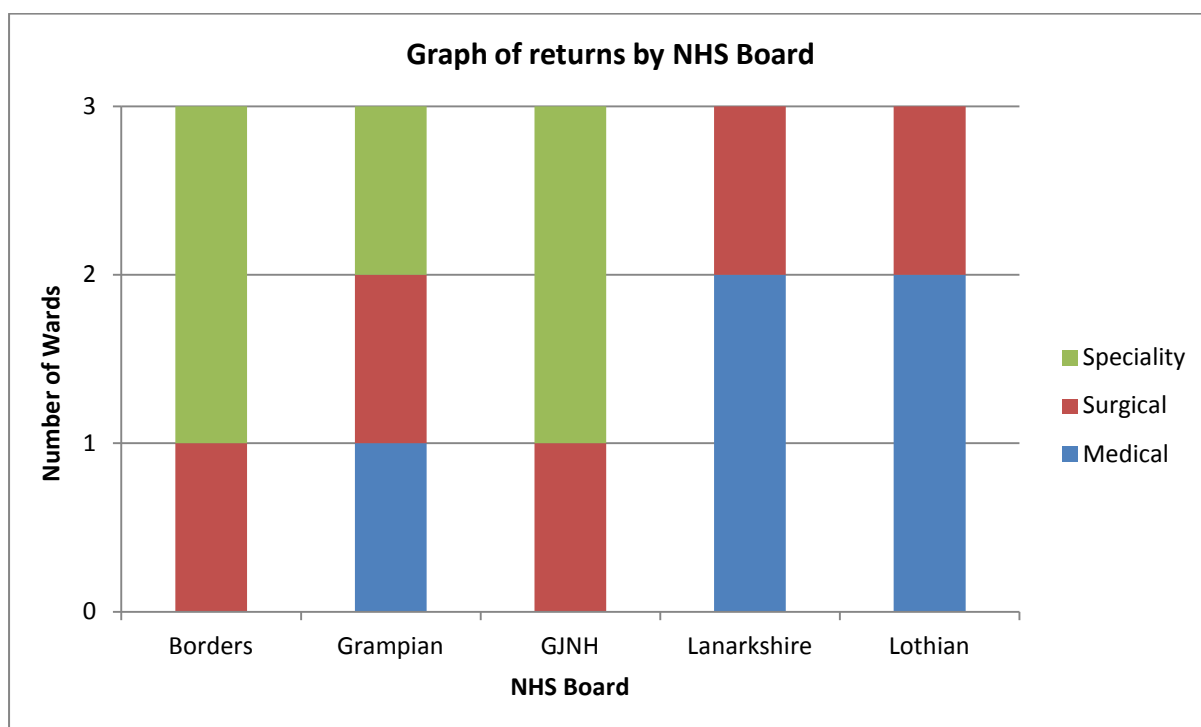
The patient equipment and environment tool was successfully piloted in 5 NHS Boards in 3 clinical areas between December and February 2015.

- The pilot time of 4 weeks was achieved in all 3 clinical areas in NHS Lothian and Grampian.
- In Golden Jubilee National Hospital the pilot time was achieved in 2 out of the 3 clinical areas with the exception of surgical (orthopaedic ward) which had to be relocated with a pilot time of only 1 week undertaken.
- NHS Lanarkshire successfully piloted the tools for 3 weeks in surgical and care of elderly ward however, they only managed to pilot the tools for 2 weeks in a medical ward.
- NHS Borders completed the pilot for 4 weeks in 2 out of the 3 clinical areas, with the exception surgical (gynaecology) ward but did achieve a pilot period of 3 weeks.

Evaluation returns by NHS Boards/Clinical Area Speciality

Each NHS Board/clinical area returned the requested completed evaluations providing a total return of 15 evaluations. Compliance monitoring was carried out in 5 medical, surgical and speciality wards. The speciality wards included labour, renal dialysis, renal, cardiothoracic and CCU (interventional angioplasty).

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Process Efficiency

Ease of use

12 of the 15 evaluations (80%) from the clinical areas, reported positive feedback that the patient equipment and environment compliance monitoring tools were easy to use across surgical, medical and speciality areas. Of the remaining 3 evaluations, 2 clinical areas felt the process of compliance monitoring was time consuming.

All 3 clinical areas provided recommendations for improvement upon the ease of the tools, 1 of which reported that the tool was easy to use. Ward category type had no specific influence on the recommendations.

The following considerations and comments for improvement were reported:

- Minor regrouping of listed items of patient equipment.
- Customisation with actual equipment in the patient's room to improve on the time dependency.
- Simplification of the language for instruction of use of the tool.

Was the data collection tools checklist of equipment and environment listings sufficient as a generic tool for use within the clinical areas?

Positive comments included that the equipment tool listing was comprehensive with sufficient space to add items with, 13 out of 14 evaluations (93%) supporting that the content of the tools listings were sufficient for use. One speciality area, a labour ward, did not provide any response for this part of the evaluation.

Considerations for improvement were:

- Inclusion for bedside chair and locker in the environmental tool.
- Specialised area would suggest a section for equipment specific to your area.
- Customise specifics to the near patient environment.

To improve upon the quality improvement action plan additional feedback was provided from a medical ward stating that inclusion of the acronym PDSA (Plan, Study, Do, Act) as a header in the quality improvement action plan area may prompt staff for greater thought and action.

Outcome effectiveness

Is the devised tool beneficial for monitoring compliance with standards of cleanliness for re-useable communal patient equipment and the near patients' environment?

Analysis identified positive feedback from 13 out of 15 evaluations (87%) conveying the pilot clinical areas found the devised tool beneficial.

Within 1 NHS Board, 3 clinical areas piloted provided negative feedback, although one of these areas did state overall they found the tool beneficial. Finally, there was concern reported from 1 medical ward that the tools duplicated those of the SICPs audits however it is recognised that there is a clear differential between the existing and the pilot tool. The patient equipment tools differ in that one is monitoring compliance with procedural knowledge and the pilot tool monitors outcome i.e. is the equipment clean or not. Examining the environment tools, whilst both measure the outcome of cleanliness the SICPs tool is in a broad context to cleanliness of the environment whilst the pilot tool has a specific listing of items within the near patient environment that must be checked for standards of cleanliness.

Comments included.

- Specialised area preferred the checklists they already had in place.

- The tools would be additional paper work for Band 7 and spot checks would be deemed as effective as they are only as good as the time you are doing the checking.
- Clinical area already has numerous checklists in place that are actioned at different frequencies.

Would you consider the tools useful for evidencing compliance monitoring?

87% of respondents supported the usefulness of tools for evidencing compliance monitoring. Positive feedback stated it was clear and easy to use although it was reported it was time consuming and was only as good as the time you carry out the check. It was reported that there was duplication of tools within the SICPs' tools which has already been discussed around the differentials.

Comments for consideration from 1 surgical area

- Simplification of the language used to calculate the compliance monitoring score, i.e. numerator/denominator.

Conclusion

The devised compliance monitoring tools provided for use were successfully piloted within 5 NHS Boards across a balanced category of ward types in medical, surgical as well as across a range of specialities' including renal, maternity, cardiothoracic and specialised CCU unit that cares for patients following interventional angioplasty.

Although not all clinical areas managed to pilot the tools for a period of 4 weeks, the majority of the clinical areas piloted the tool for 3-4 weeks with the exception of 1 clinical area which only achieved a pilot week of 1 week. Overall positive findings were reported with an acceptability of the tools for ease of use, content and for improvement in practice. Minor changes to the devised tool could be considered to improve upon the process efficiency and its use as a quality improvement to evidence and support change management.

Although 1 surgical clinical area stated they preferred the use of their current checklists, this format does not facilitate evidence of compliance monitoring or quality improvement to support change management and there is a clear differential in the compliance monitoring tools pilot from those in SICPs.

To improve upon the tools ease of use and outcome effectiveness the following considerations should be taken:

1. Regroup some of the patient equipment specifications to make the tools easier to use.

2. Include environmental specifications; bed chair and locker
3. Specify acronym PDSA for a prompt for the staff for improved use of the quality improvement action area for non compliances.

Recommendations

Following approval of the Expert Decontamination Steering Group, the 2 proposed devised tools specified here should be recommended for inclusion within the existing compliance monitoring tools as additional support tools for the National Infection Prevention and Control Manual.

References

1. HEI (2014) Healthcare environment inspectorate reports [online] available from http://www.healthcareimprovementscotland.org/programmes/inspecting_and_regulating_care/environment_inspectorate_hei.aspx
2. NHS HDL (2005) 7 Infection control and nursing: cleaning issues [online]available from http://www.sehd.scot.nhs.uk/mels/HDL2005_07.pdf