Winnipeg Regional Health Authority | Office régional de la santé de Winnipeg

Rationale for 200 Opportunities per Hand Hygiene Audit for WRHA Hospitals

Direct observation of healthcare workers during patient care activity by trained and validated observers is recognized as the gold standard for hand hygiene monitoring [1,2]. Observation makes it possible to quantify the specific need for hand hygiene and assess the quality of practice[1]. Direct observation is a demanding and resource-intensive activity requiring training, skill, and experience and has potential biases and confounding factors that can be minimized only by applying a rigorous method. As it is rarely practical to observe hand hygiene compliance at all times in all areas of a healthcare facility, a sample is taken to represent the compliance at a particular unit, department, or hospital over a time period. The greater the sample size, the better the confidence in the result to allow meaningful comparison between units and between time points.

It is important for WRHA to have reliable results. 200 opportunities is the minimum requirement in hospital sites to have reliable comparable results over the long term. 200 opportunities are required to meet statistical significance and is the number recommended by the World Health Organization for, as well as by, many international, federal and provincial organizations. The WRHA has used the guidance of these organizations to determine the number of opportunities required per audit. Several published evidence-based guidelines/recommendations present 200 as the required number of opportunities per observation period.

Community and free standing personal care home sites have a different client/resident population as well as different levels of care within their facilities. The number of opportunities recommended at these sites is individually determined according to the site or program, in collaboration with the site/program Infection Control Practitioner(s).

The overall aim of presenting hand hygiene compliance results is to give an indication of the compliance among staff and allow facilities to compare their own data over time. Audit results do not present the same scientific data as surveillance data, however, they aim to provide valuable and contextual information that can help target hand hygiene activities to improve compliance where required in each area.

Some references related to recommended auditing practices are highlighted below.

<u>World Health Organization Recommendations</u>

The WHO Hand Hygiene Technical Reference Manual[3] recommends 200 opportunities per unit per observation period stating:

*"There is no clear evidence on the ideal sample size needed to ensure representativeness, but sample size estimates indicate that **200 opportunities per observation period and per unit of observation** (either **ward**, department, or professional category etc) are needed to compare results reliably.*

To sum up, the following principles must always be adhered to:

- *Define the scope of the observation*
- *Gather data on 200 opportunities per observation per unit (either ward, department or professional category, etc) per observation period*
- *Observe practices by health-care professionals in direct contact with patients*
- *Document the data by professional category and by setting, gathered during 20 minute sessions (may be up to 10 minutes longer or shorter)*
- *Do not observe more than three health-care workers simultaneously"*

Canadian Recommendations

Safer Healthcare Now! (SHN)[4] states it is important to have a large enough sample size to be meaningful, as not collecting enough data means the rates may not be reliable since any changes could be due to chance alone rather than the effect of the intervention. Specifically, SHN recommends 56 observation sessions of 20 minutes is needed to collect enough data for a reliable compliance rate for the specific area, providing approximately 200 opportunities for the area. It is also outlined that the time frame for the audit period should be no less than a 2-week period. Public Health Ontario Provincial Infectious Diseases Advisory Committee (PIDAC) recommends 200 opportunities per audit within acute care facilities. British Columbia requires 200 opportunities for all acute care audits. Trends for facilities are only reported once a minimum of 200 opportunities are available[5]. This practice is mirrored across the country, and is the standard for other provinces.

Recommendations from Other Countries

Ireland has determined 200 opportunities is the optimum sample size to represent compliance at a particular unit/ward/department for within acute care facilities[6]. Australia recommends 200 opportunities per audit as a minimum, with higher counts required for higher risk areas[7].

Dr. Didier Pittet[1], an internationally recognized leader in hand hygiene practices, Professor of Medicine, Director of the Infection Control Programme at the University of Geneva Hospitals and Faculty of Medicine, Switzerland, and the Lead of the World Health Organization's World Alliance for Patient Safety First Global Patient Safety Challenge "Clean Care is Safer Care" has published literature describing the statistics related to attempting to show either a 10 or 20% change over time, and 200 opportunities lies close to a 20% change. Without 200 opportunities, there would not be the statistical power to determine if the changes seen are significant and/or reliable over time.

References:

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