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## Hand hygiene compliance

Hand hygiene is one of the most effective means of reducing healthcare associated infection (HCAI). However, compliance by healthcare workers (HCWs) with recommended hand hygiene frequencies and techniques has been reported as suboptimal.<sup>1;2</sup> Time constraints, skin integrity, physical resources and absence of role models have been identified as barriers to compliance.<sup>3</sup> Improved compliance has been reported following education,<sup>2</sup> introduction of alcohol gels/rubs,<sup>4</sup> observation and feedback,<sup>5</sup> and local promotion activities.

Adherence of HCWs to hand hygiene guidelines has been measured by direct observation, indirect measurements (e.g., alcohol gel/rub, soap and paper towel usage) and self reporting of practice.<sup>6</sup> The World Health Organisation (WHO) recommends direct observation as the gold standard.<sup>7</sup>

The advantages of direct observation are:

- Assessment of compliance rates in different groups of HCWs<sup>8</sup>
- Assessment of HCW behaviour (e.g., when and where HCWs are more likely to wash their hands<sup>9</sup>)
- Assessment of hand hygiene technique<sup>10;11</sup>

Disadvantages of direct observation are:

- Labour intensive and time consuming<sup>12</sup>
- Requirement for trained observers<sup>13</sup>
- Influence of the "Hawthorne effect" on results<sup>14;15</sup>
- Objectivity of the observer<sup>13</sup>
- Using results to compare internally or externally when the inter rater reliability has not been assessed<sup>14</sup>

Irish national hand hygiene guidelines were published in 2005 and while some healthcare facilities (HCF) are currently measuring staff compliance using the hand hygiene observation audit tool adapted from these guidelines,<sup>15</sup> other facilities are using a range of different tools. In addition data on alcohol hand gel/rub usage in acute hospitals is available at [www.hpsc.ie](http://www.hpsc.ie)

The Health Protection Surveillance Centre (HPSC) in conjunction with the Infection Prevention Society (IPS) have developed a hand hygiene observation audit tool and a standard operating procedure (SOP) to improve consistency in hand

hygiene observation audits in all acute HCFs. The tool has been piloted and has been approved by the national Strategy for Antimicrobial Resistance in Ireland (SARI) committee. The SOP is [here](#).

Compliance with hand hygiene is measured by noting a hand hygiene opportunity (HHO) and observing if the HCW performed a hand hygiene episode in response to that opportunity. The WHO "5 moments for hand hygiene" are used to define what is an opportunity.<sup>16</sup> A hand hygiene episode is defined as hand washing with soap and water or using an alcohol gel/rub. Compliance is defined as the total observed hand hygiene episodes divided by the HHO multiplied by 100 and expressed as a percentage.

Compliance =  $\frac{\text{observed hand hygiene episodes} \times 100}{\text{hand hygiene opportunities (HHO)}} = \% \text{ compliance}$

Acute healthcare facilities (HCF) are advised to undertake hand hygiene observational audits biannually. A local action plan to address compliance rates <75% should be put in place in each HCF. This target (75%) should be viewed as the start of a process which will see it increase year on year. The overall aim of this process is to achieve 100% compliance.

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