

## Patient empowerment as a driver of hand hygiene practice: time for patients in South Africa to have their say

“Patient-centered care” presumes the active involvement of patients and their families in the design of new care models and in decision-making about individual options for treatment.<sup>1</sup> An extension of this concept would be for patients and their families to play an active role in policing potentially harmful practices that are ongoing in our healthcare facilities. One of the greatest direct threats to patient safety is the rise of antibiotic-resistant bacterial infections. Antibiotics play a vital role in the treatment of bacterial infection, and when used correctly, have a profound impact on morbidity and mortality. However, decades of inappropriate antibiotic use have driven the emergence of drug-resistant bacteria, by selecting out those with resistance. Today, multidrug-resistant bacterial infections are encountered in public and private hospitals across South Africa.<sup>2</sup> Panresistant Gram-negative infections have already been identified,<sup>3</sup> and the number of these untreatable infections will only increase. The true burden of healthcare-associated infections in South Africa is unknown, but globally, hundreds of millions of patients are affected each year.<sup>4</sup>

The international response to this threat centres on strengthening antibiotic stewardship and infection prevention and control practices. While antibiotic stewardship (which encompasses a multidisciplinary approach to effect rationale antibiotic prescribing) is a complex challenge, requiring knowledge of how to diagnose infection and use antibiotics, preventing the spread of resistant bacteria in hospitals, clinics and general practitioner surgeries is not difficult. The simplest and most effective intervention to reduce the spread of resistant organisms is for healthcare workers to disinfect their hands before and after patient contact.<sup>5,6</sup> This may be carried out either by hand rubbing with an alcohol-based disinfectant, or by washing with soap and water. Sadly, simplicity does not always correlate with conformity, and herein lies the challenge. We know what works, but we do not do it.

Healthworker compliance with hand disinfection is uniformly poor across resource settings, types of healthcare institution, and type of practitioners studied. Compliance is usually estimated at < 50%.<sup>7</sup> Numerous strategies have been designed and implemented to address poor compliance. Although each individual intervention usually results in improvement in hand hygiene, the median effect remains low. A number of studies and systematic reviews of hand hygiene improvement strategies<sup>8-11</sup> suggest that combinations of interventions are more effective than single ones, particularly those that go beyond improving knowledge, awareness and supplying materials, but in addition address social influence, attitudes and intention.<sup>10</sup> The World Health Organization’s (WHO) multimodal strategy (The 5 Moments for Hand Hygiene)

has been widely adopted and was shown to effect a significant improvement in overall compliance in six pilot sites in Costa Rica, Italy, Mali, Pakistan and Saudi Arabia, the greatest improvement being in the low- and middle-income sites.<sup>11</sup>

Healthcare workers form only one side of the equation in terms of driving good hand hygiene practice. The other side is the patient. Patient empowerment, a process through which patients gain greater control over decisions that affect their health,<sup>12</sup> could be used to improve healthcare worker hand hygiene practice and limit the spread of resistant bacteria by empowering patients to prompt healthcare workers to carry out hand hygiene.

A number of factors have been identified which empower patients in this regard, including the provision of printed information given to patients by healthcare workers for use as prompt sheets, the promotion of self-efficacy (an individual’s belief that he or she has the capability to produce an effect or reach a certain goal),<sup>13</sup> and an improvement in health literacy. These are all central to the process. Moreover, establishing a facilitating environment to enable the patient to break through the power imbalance of the healthcare worker-patient relationship is essential.<sup>14</sup> A key factor that enables the participation of patients is healthcare workers giving patients express permission to prompt them.<sup>15</sup> Longtin et al reported on a doubling of patient’s intentions to prompt a nurse (from 34% to 83%) or a physician (from 30% to 78%), if given permission to do so.<sup>16</sup>

A number of studies from developed countries show high percentages of patients wanting to play a role in prompting healthcare workers to disinfect their hands.<sup>17-19</sup> Barriers to patient empowerment are clarified in the WHO guidelines for hand hygiene, and include factors such as the culture of not speaking up or challenging the authority of healthcare workers out of fear that it will negatively impact on care,<sup>20</sup> Poor interpersonal communication skills with regard to instructing patients on how to become empowered, as well as intrapersonal factors, such as vulnerability, pain and illness are also cited.

All options must be considered to combat antibiotic resistance, employing antibiotic stewardship<sup>21</sup> and infection control. Rather than reinventing the wheel in terms of patient empowerment, we need to take cognisance of the lessons learned in other settings, and to act quickly to incorporate patient empowerment in our multimodal response, using the WHO 5 Moments for Hand Hygiene. Let’s face it, we need all the help we can get.

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## References

1. Wikipedia. Patient-centred care. Wikipedia [homepage on the Internet]. c2013. Available from: [http://en.wikipedia.org/wiki/Patient-centered\\_care](http://en.wikipedia.org/wiki/Patient-centered_care)
2. Brink AJ, Coetzee J, Clay CG, et al. Emergence of New Delhi metallo-beta-lactamase (NDM-1) and *Klebsiella pneumoniae* carbapenemase (KPC-2) in South Africa. *J Clin Microbiol*. 2012;50(2):525-527.
3. Brink AJ, Coetzee J, Corcoran C, et al. Emergence of OXA-48 and OXA-181 carbapenemases among Enterobacteriaceae in South Africa and evidence of in vivo selection of colistin resistance as a consequence of selective decontamination of the gastrointestinal tract. *J Clin Microbiol*. 2013;51(1):369-372.
4. World Health Organization. Report on the burden of endemic health-care-associated infection worldwide. WHO [homepage on the Internet]. 2011. c2013. Available from: [http://whqlibdoc.who.int/publications/2011/9789241501507\\_eng.pdf](http://whqlibdoc.who.int/publications/2011/9789241501507_eng.pdf)
5. Pittet D, Allegranzi B, Sax H, et al. Evidence-based model for hand transmission during patient care and the role of improved practices. *Lancet Infect Dis*. 2006;6(10):641-652.
6. Allegranzi B, Pittet D. The role of hand hygiene in healthcare-associated infection prevention. *J Hosp Infect*. 2009;73(4):305-315.
7. Pittet D. Improving adherence to hand hygiene practice: a multidisciplinary approach. *Emerg Infect Dis*. 2001;7(2): 234-240.
8. Naikoba S, Hayward A. The effectiveness of interventions aimed at increasing handwashing in healthcare workers: a systematic review. *J Hosp Infect*. 2001;47(3):173-180.
9. Costers M, Viseur N, Catry B, Simon A. Four multifaceted countrywide campaigns to promote hand hygiene in Belgian hospitals between 2005 and 2011: impact on compliance to hand hygiene. *Euro Surveill*. 2012;17(18):pii:20161.
10. Huis A, van Actenberg T, de Bruin M, et al. A systematic review of hand hygiene improvement strategies: a behavioural approach. *Implement Sci*. 2012;7:92.
11. Allegranzi B, Gayet-Ageron A, Damani N, et al. Global implementation of WHO's multimodal strategy for improvement of hand hygiene: a quasi-experimental study. *Lancet Infect Dis*. 2013;13(10):843-851.
12. World Health Organization. Guidelines on hand hygiene in health care. WHO [homepage on the Internet]. 2009. c2013. Available from: [http://whqlibdoc.who.int/publications/2009/9789241597906\\_eng.pdf](http://whqlibdoc.who.int/publications/2009/9789241597906_eng.pdf)
13. Bandura A. Self-efficacy. In: Ramachandran V, editor. *Encyclopedia of human behaviour*. New York: Academic Press, 1994; p. 71-81.
14. Angelmar R, Bermann BP. Patient empowerment and efficient health outcomes. Financing sustainable healthcare in Europe. [homepage on the Internet]. c2013. Available from: [http://www.sustainhealthcare.org/The\\_Cox\\_Report.pdf](http://www.sustainhealthcare.org/The_Cox_Report.pdf)
15. McGuckin M, Govednik J. Patient empowerment and hand hygiene, 1997-2012. *J Hosp Infect*. 2013;84(3): 191-199.
16. Longtin Y, Sax H, Allegranzi B, et al. Patients' beliefs and perceptions of their participation to increase staff compliance with hand hygiene. *Infect Control Hosp Epidemiol*. 2009;30(9):830-839.
17. cleanyourhands campaign. London: National Patient Safety Agency [homepage on the Internet]. Available from: <http://www.npsa.nhs.uk/cleanyourhands/>
18. Duncanson V. A study of the factors affecting the likelihood of patients participating in a campaign to improve staff hand hygiene. *J Infect Control*. 2005;6:26-30.
19. McGuckin M, Waterman R, Shubin A. Consumer attitudes about health care-associated infections and hand hygiene. *Am J Med Qual*. 2006;21(5):342-346.
20. Vincent C. Understanding and responding to adverse events. *N Engl J Med*. 2003;348(11):1051-1056.
21. Mendelson M, Whitelaw A, Nicol M, Brink A. Wake up South Africa! The antibiotic horse has bolted. *S Afr Med J*. 2012;102(7):607-608.