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Title of innovation / initiative

Empowering healthcare workers to improve patients' hand hygiene compliance before mealtimes and after toileting: a quality improvement project to support the reduction of healthcare associated infection (HAI) on a medical ward

Problem

Hand Hygiene remains one of the most effective method in reducing HAIs, but the technique is largely focused on Health care workers (HCWs).

Emerging collection of evidence suggests that patient's hand hygiene has a role in the prevention of HAI transmission including established ways to support patient hand hygiene in the healthcare settings (Knighton et. al, 2020). Involving HCWs in the process could improve compliance significantly (Sunkesula et. al, 2015). It is the aim of the Infection Prevention and control team (IPCT) to tackle rising HAI and work on systems and processes to avoid occurrence of HAI, prevent transmission and avert an outbreak.

- Hospital acquired infections is key avoidable harm. Recent audit on a medical ward showed 11% compliance with hand hygiene before meals and 13% after toileting, (data from Dec 2022).

Aim

- To reduce hospital acquired infections by 50% by Dec 2023 on the pilot medical ward
- Increase compliance of patient hand hygiene from 11% to over 60% on the pilot ward by May 2023 and over 85% by December 2023

Plan

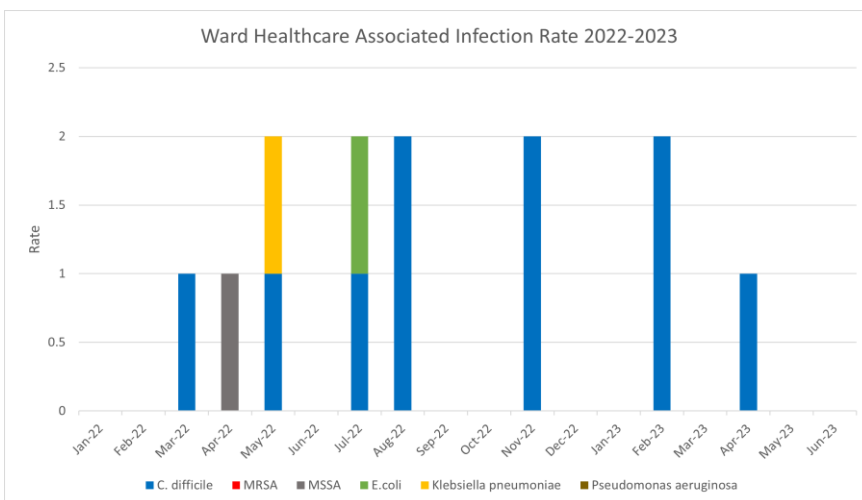
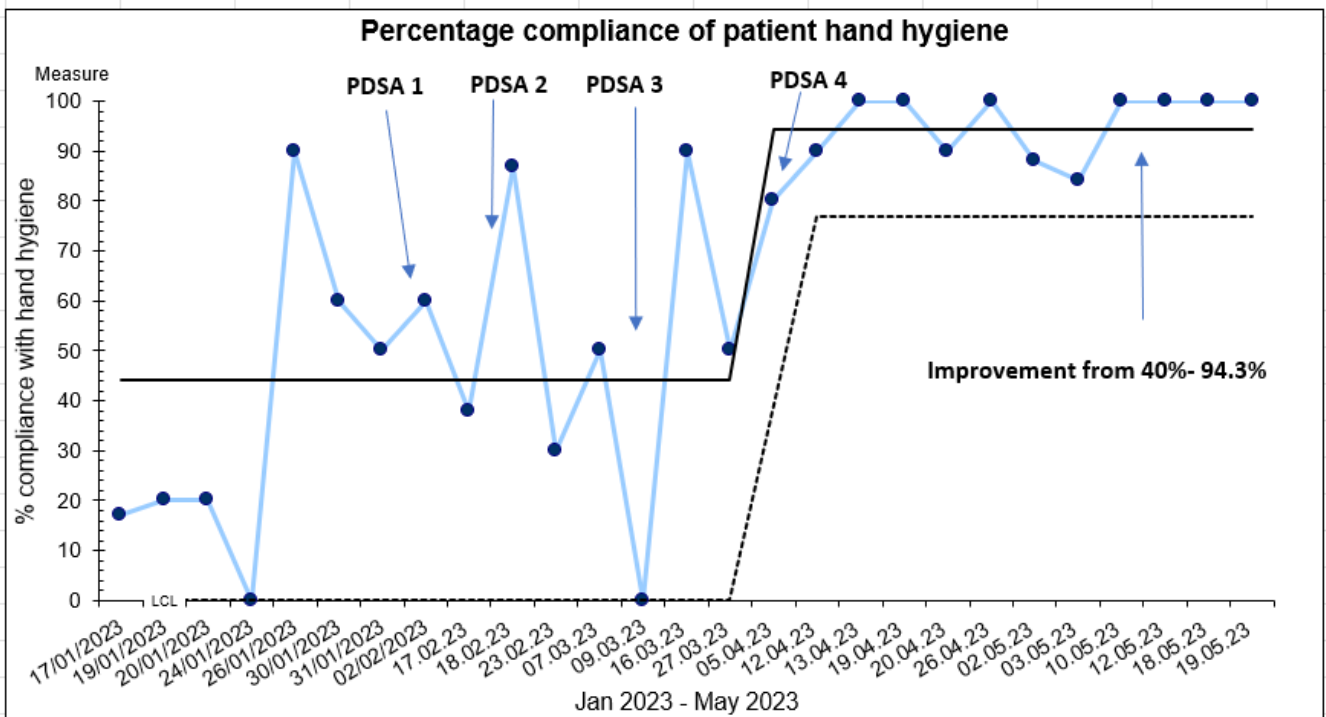
- What did you do and how did you do it?
The IPCT carried out a quality improvement project which looked into improving patient safety and quality of care by reducing risk of harm from preventable HAI by delivering a patient-centred approach through the use of a multimodal strategy to improve patient HH compliance.
 - A stakeholder analysis was undertaken using the 9Cs for the quality improvement (QI) framework with the aim of identifying the key individuals who will support and empower the QI and sustain the changes (NHS Improvement 2017).
 - The stakeholder with the highest interest and power created a process map and a driver diagram to demonstrate the system that is necessary to establish the necessary process to achieve the aim.
 - A PDSA cycle was deployed to conduct the change ideas.
 - A behaviour change wheel was utilised to ascertain interventions needed to engage and empower staff in the process to improve perspective and related behaviour in the role.
- Key drivers for change
 - Improve communication on patient hand hygiene
 - Improve hand hygiene awareness for patients and staff
 - Ward engagement to empower staff to support patients with hand hygiene

- Patient involvement to understand how to improve hand hygiene

- Change ideas

- Leaflet at bedside to offer hand hygiene (HH)
- Housekeeper monitor availability of wipes, domestic staff ensure soap and hand rub is regularly replenished
- Real time or drop in IPC teaching, HH competency
- Hand hygiene champion to distribute hand wipes to patients
- Volunteers support patient's HH before meals
- Include patient ideas for testing in poster design

- The Impact:



Since QIP started in January 2023, we have seen a further reduction in Cdiff rates are slowly dropping as well by upto 50% and maintained a 0% rate for other HCAI's.

- Did you use any improvement methodology or tools?

- We utilised the NHS Improvement tool (2017)
- QI tools like driver diagram and PDSA cycles for used

Benefits

The multimodal approach to empower staff in supporting compliance of patient HH is an effective method in ensuring right messaging, approach. Our key aim was to engage patients, staff, and all service users in improving HH compliance as demonstrated on the outcomes of this QI project.

A sizeable cost savings was identified in opting to hand out the wipes individually before mealtimes – This was found to be equally effective in ensuring that patients have the opportunity to clean hands before mealtimes themselves, thus empowering their independence. The method also generated no wastage of wipes and a reduced amount of packaging being disposed of daily which are sound and better opportunity for sustainability towards a greener NHS. Furthermore, empowering staff in supporting patient HH conveys a positive message to most patients, that 'by giving, we care', the Trust cares. Overall, prevention of avoidable HAI reduces risk of patient developing harm and improves general patient experience.

Measures

Please share any measures that you used to discover if your initiative resulted in an improvement.

- Outcome measure: Reduction in HCAI rate by 50% by end of Dec 2023 and Increase percentage compliance on patient hand hygiene over 50% by May 2023
- Process Measure: Percentage total number of trained staff trained during huddle and percentage of staff who received supplemental 3C's training – 59% staff trained.
- Balancing measure: There's a cost savings **of £3628.80** per year trust-wide. Also, a significant reduction in waste stream as packaging are not disposed of as often as every time one uses a wipe, aiding environmental sustainability

No of engagement sessions and total number of staff engaged:

- The stakeholders met fortnightly, the IPC team carried out twice weekly hand hygiene audit for period of 6 months

Resources / team

- What did you need to make the change (equipment, budget etc)?
The Trust already provides hand wipes to patient which are individually packed. The QIP introduced a bigger packaging of the same wipe. The wipes were handed out before meals to patients by an identified hand hygiene champion of the day/shift.
- Who was involved in making the change – did you involve patients and carers?
The stakeholders were representatives from the leadership team of the division, the ward, quality improvement team, infection prevention & control, clinical practice facilitator, physician, procurement, waste management, allied health practitioner, ward staff, volunteers, and patients.
- Did you use evidence or build on ideas from other trusts or organisations?
A multimodal approach was utilised in improving patients' hand hygiene practice as the strategy has significantly improved patient HH compliance (Loveday et. al, 2021).
Reference: Loveday HP, Tingle A, Wilson J (2021) Using a multimodal strategy to improve

Key learning

- Empowering staff to support improvement in patient HH using a multimodal approach has shown significant sustained Improvement
- The first aim of the improvement project was to keep HAI infections below 50% of baseline by Dec 2023. The ward managed to maintain this to between 1% to 25% for MRSA BSI, MSSA BSI, E. coli BSI, Klebsiella pneumoniae BSI, and Pseudomonas aeruginosa BSI however the ward needs to continue working on reducing C. difficile rates to below 50%. For the second aim, the application of multi-modal approach in supporting patient HH resulted in an improvement beyond 80% initially aimed at 60% by May 2023.
- Use of large wipes has resulted in better environmental Impact, contributing to our wider 'greener NHS plan'
- The willingness of the ward leadership team to receive support in reducing HAI through QI coaching
- The patient's participation in the design of the leaflet, poster, and their active involvement in HH and feedback has enabled staff to understand what matters to our patients.
- The cooperation of the volunteers
- QI skills improved efficiency and outcomes through guided approach using data and collaboration to influence wardbased team.

Tips for others

- *Who else can benefit from this work?*
Any Healthcare Trust who is committed to reducing the risk of harm from healthcare associated infection can learn and adopt the process.
- *What advice would you give to others doing the same thing?*
Start now, build on it, and see it through.

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Acknowledgements: Bianca Viegas, Harmfree programme lead and QI team

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Date of innovation / initiative: Jan 2023...

Do you have any attachments?

- "A picture is worth a thousand words". Are there any photos or graphics that could help bring your story to life?
- Are there any supporting materials, documents, communications or other outputs that you used or produced that you could share to prevent others reinventing them?

If so, please upload them to the Fab site with this completed template.