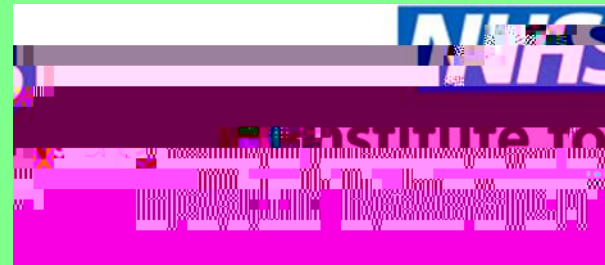


# Use of non-sterile gloves in healthcare; of risk and decision making

Ashley Flores MSc BSc(Hons) RN  
Martha J Wrigley PhD RN



Commercial sponsor and partner: Industrial Microbiological Services Ltd (IMSL)

## Collaboration

- **Ashley Flores**  
Nurse Consultant & Deputy DIPC, Surrey & Sussex Healthcare NHS Trust
- **Linda Towey**  
(Specialist IPCN, Central Surrey Health )
- **Martha Wrigley**  
Staff Nurse, Somerset Partnership NHS Foundation Trust  
Honorary Research Fellow, University of Plymouth  
(R&D Manager, Ashford & St Peter's Hospitals NHS Foundation Trust)
- **Bernadette Egan**  
Research Design Service, University of Surrey
- **Pete Askew**  
MD Industrial Microbiology Services Ltd
- **Rachel Craig**  
Volunteer, Ashford & St Peter's Hospitals NHS Foundation Trust

## Research has identified an overuse of gloves in clinical practice

- Hand hygiene compliance is significantly worse following glove overuse (Flores & Pevalin 2006)
- Healthcare workers are less likely to decontaminate their hands after using non-sterile gloves (NSG) (Chau et al, 2011)
- Donning NSG is a significant factor in lowering nurses' compliance with hand hygiene (Kurtz, 2017)
- The most common breach of hand hygiene protocol is the abuse of gloves (Boudjema et al, 2017)
- Overall rate of cross contamination of associated with NSG was 49% (Wilson et al, 2017)
- Contamination occurred in 79.2% of simulations involving the removal of PPE, the hands and fingers being most contaminated (Kang et al, 2017)

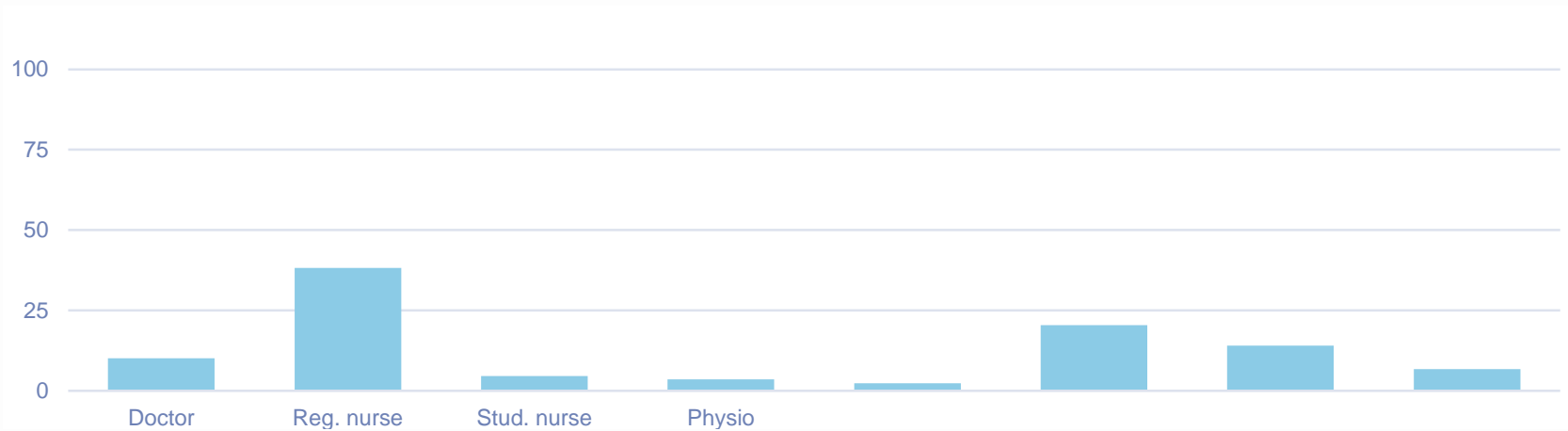


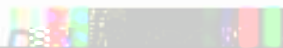
# Methodology

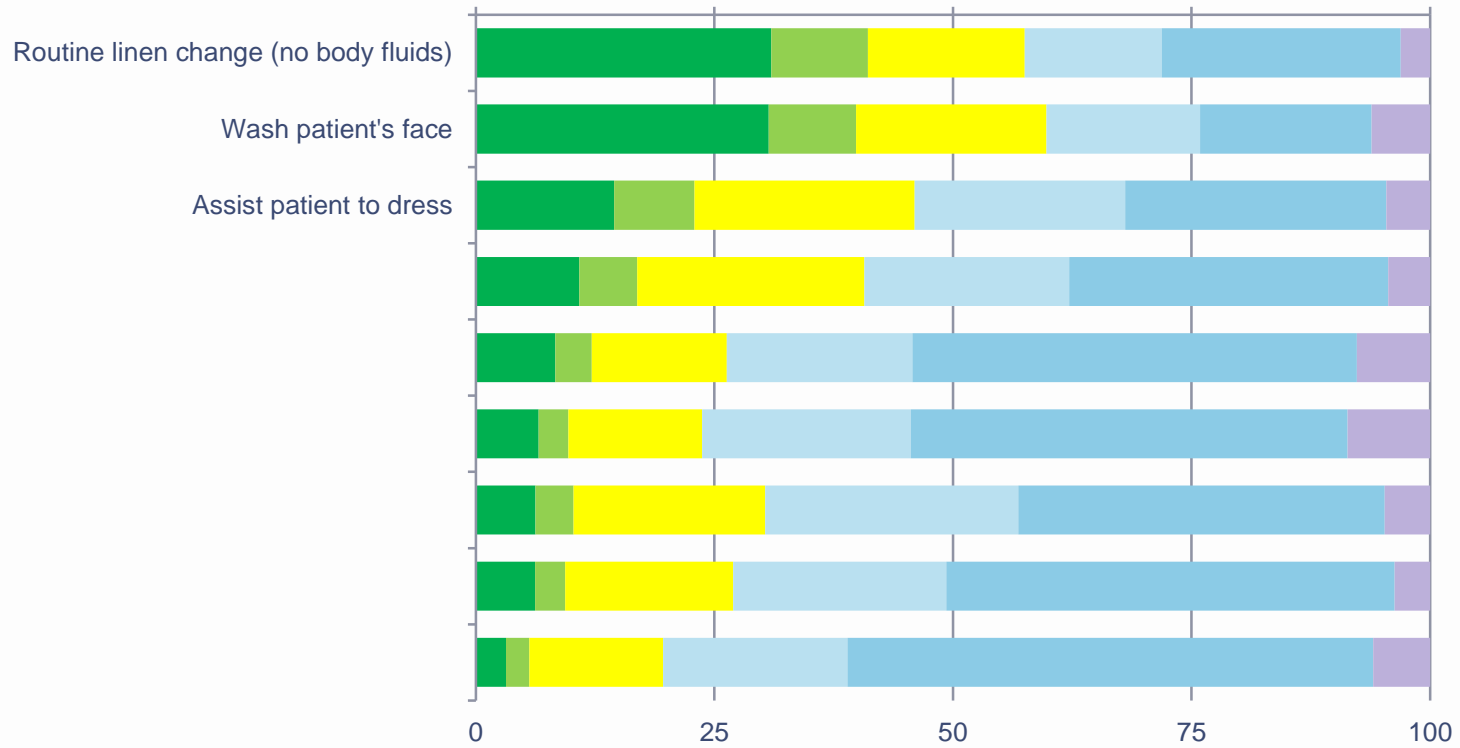
## Semi-structured interviews

- 13 interviews
- Across 3 healthcare organisations
- Recorded and transcribed verbatim
-

# Population profile and years in UK healthcare Questionnaire

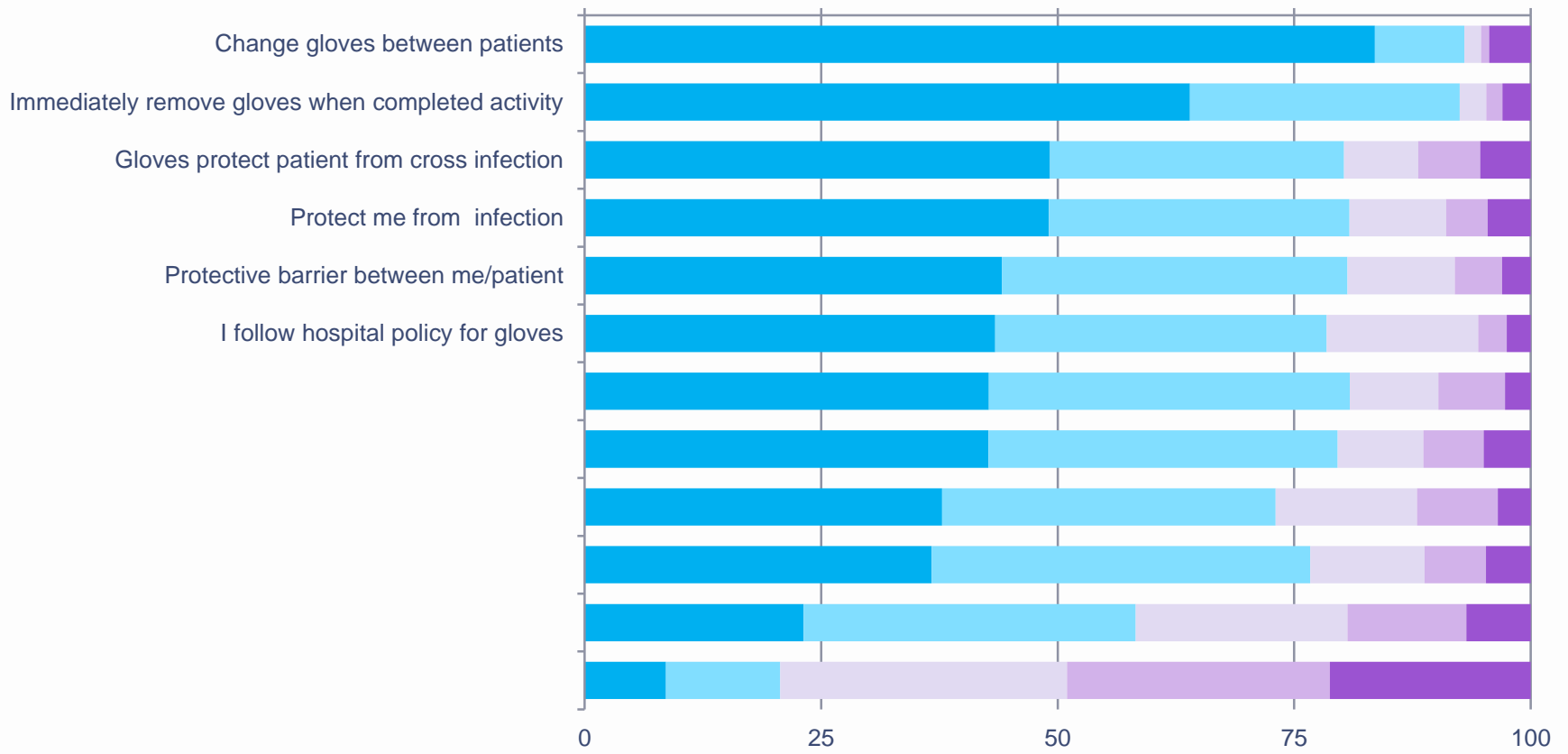


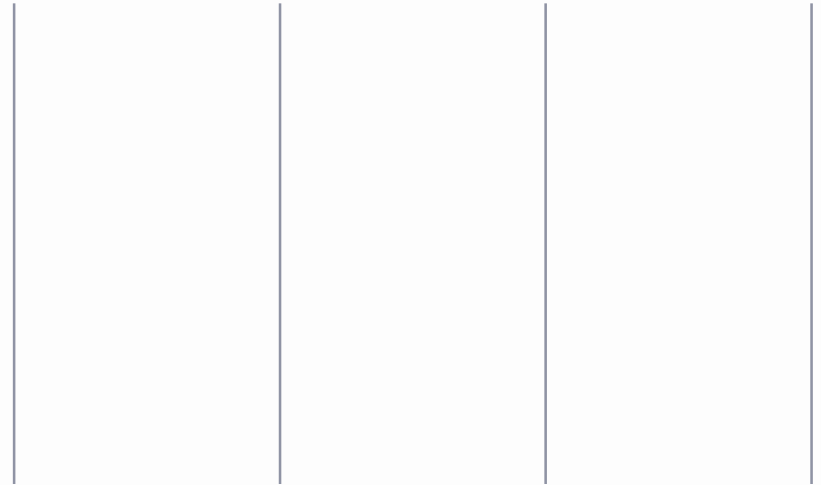


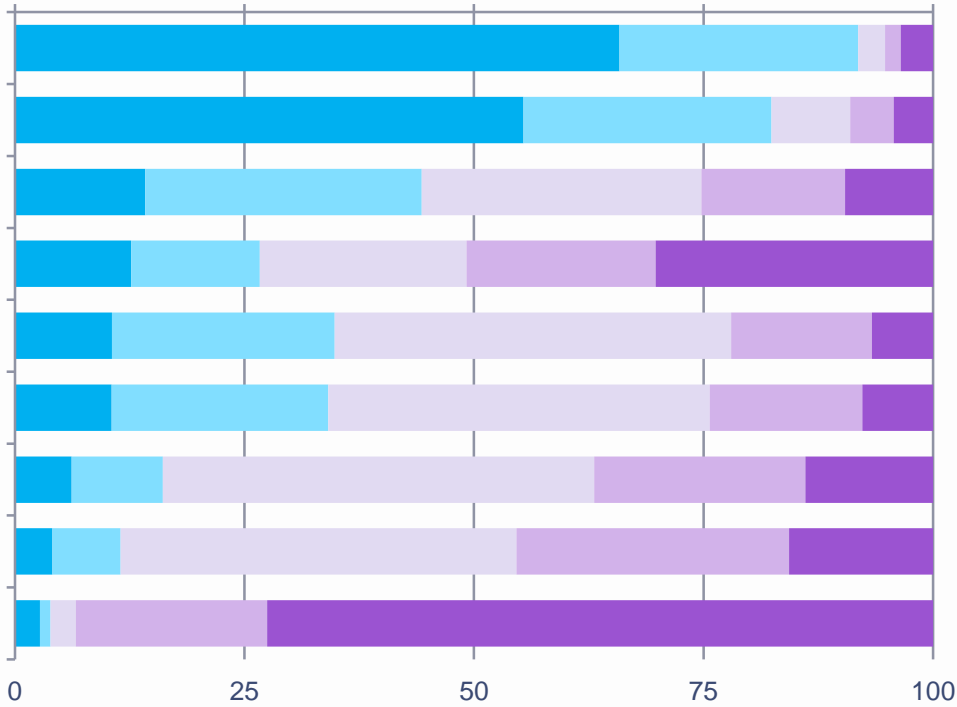












# Qualitative Results

Interviews carried out by a nurse researcher.

| Profession            | Number of Participants |
|-----------------------|------------------------|
| Registered Nurse      | 6                      |
| Health Care Assistant | 5                      |
| Therapist             | 1                      |
| Doctor                | 1                      |

# Decision to use gloves

- Principally used for own safety

## Issues for gloves

- Colour
- Double gloving
- Barrier - for intimate care
  - ‘when washing a patient...sometimes only for personal areas....makes the procedure less intrusive and de-personalised it, so that the patient was able to retain their dignity’
- Resources
  - Cost, time and waste
    - ‘after handover I normally ask the staff that; please do not use any gloves which is not necessary really.’
- Dexterity
-





## Education and training

- Hand hygiene training at induction, but no specific training regarding the appropriate use of gloves.
  - Three respondents mentioned Trust policy; that they should be reading it but had not actively sought it. Did not know for certain if there was a policy, but assumed the Trust had one.
- ‘..I have watched other people, but no-one has specifically said this is what

‘When wearing gloves we feel safe and protected, but maybe forget when spreading infection if we don’t remove them at the right time. We may clean a commode with gloves on and then open a door with them on. We could be doing more harm than good if we only think of ourselves and not consider the bigger picture.’

## Conclusion

- Glove use is a complex issue
  - greater understanding of when and why they are worn for different healthcare groups is needed
- Education and training is key, in order to ensure sustained behavioural changes
- Clearer guidance and policy
- Patient experience and safety is central
  - importance of touch to convey comfort and care
  - safe environment / infection control
- Issues of sustainability and waste
  - use of resources needs to be responsible, based on clinical understanding
- Next steps – design of a multi-modal intervention to improve glove use

## Study limitations

- Maternity:
  - omitted from staff groups
  - different working practices
- Questionnaire:
  -

## Team work

Thank you to all those who have contributed to this study

All those completing the questionnaires and giving the interviews

All those downloading and checking the data

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**Nursing Times - On The Pulse Friday 30th August 2019**

**Written by Eileen Shepherd**

**Hand in glove: could your use of disposable gloves cause more harm than good?**

**How many pairs of disposable gloves do you get through a day? And have you ever thought about what happens to them when they are discarded into clinical waste? Use of gloves is a contentious issue in clinical practice. Looking back to when I trained, non-sterile gloves were used sparingly for procedures such as rectal administration of medicines and mouth care.**

**No one would have dreamed of using them to administer IM or IV medicines unless there was an identified risk. Physical care such as washing and dressing was delivered without gloves and we never used them to help patients to eat and drink. Attitudes to the use of non-sterile gloves have changed significantly over the years and it is now accepted that they are overused and, as a consequence, patients are routinely receiving care that is not evidence-based. There is also evidence that when healthcare staff use gloves to protect themselves, they wear them for multiples procedures and fail to decontaminate their hands between tasks, which puts patients at risk.**