To Glove or Not to Glove?
How to answer the question

Dr Jennie Wilson,
Associate Professor, Healthcare Epidemiology,
Richard Wells Research Centre
Background

• Hands recognised as major vehicle for transmission of infection in healthcare settings

• Hand hygiene interrupts transmission
  – Removes microorganisms acquired transiently through touch
    • Soap and water
    • Alcohol hand gel/rub
**Rationale for the use of clinical gloves**

- **Universal precautions (1987)**
  - Guidance in response to HIV to protect HCW from acquiring BBV via damaged skin
  - Disposable gloves for direct contact with blood and body fluid from all patients

- **Standard precautions (mid-1990s)**
  - Introduced gloves to routine clinical care
  - Dual purpose of protecting vs BBV and reducing risk of transmission of pathogens from BBF
  - Select to use by risk assessment of likely exposure to BBF
WHO Hygiene Guideline 2009

STERILE GLOVES INDICATED
Any surgical procedure; vaginal delivery; invasive radiological procedures; performing vascular access and procedures (central lines); preparing total parental nutrition and chemotherapeutic agents.

EXAMINATION GLOVES INDICATED IN CLINICAL SITUATIONS
Potential for touching blood, body fluids, secretions, excretions and items visibly soiled by body fluids.

DIRECT PATIENT EXPOSURE: Contact with blood; contact with mucous membrane and with non-intact skin; potential presence of highly infectious and dangerous organism; epidemic or emergency situations; IV insertion and removal; drawing blood; discontinuation of venous line; pelvic and vaginal examination; suctioning non-closed systems of endotracheal tubes.

INDIRECT PATIENT EXPOSURE: Emptying emesis basins; handling/cleaning instruments; handling waste; cleaning up spills of body fluids.

GLOVES NOT INDICATED (except for CONTACT precautions)
No potential for exposure to blood or body fluids, or contaminated environment

DIRECT PATIENT EXPOSURE: Taking blood pressure, temperature and pulse; performing SC and IM injections; bathing and dressing the patient; transporting patient; caring for eyes and ears (without secretions); any vascular line manipulation in absence of blood leakage.

INDIRECT PATIENT EXPOSURE: Using the telephone; writing in the patient chart; giving oral medications; distributing or collecting patient dietary trays; removing and replacing linen for patient bed; placing non-invasive ventilation equipment and oxygen cannula; moving patient furniture.
And if gloves are worn they…..

- Must be changed between patients
- Must be changed between procedures
- Hands must be decontaminated after removal
Are clinical gloves integrated into My 5 Moments of Hand hygiene?

Non-sterile gloves:
‘a second skin to prevent exposure of hands to body fluids’
‘glove removal represents a strong cue for hand hygiene’
Sax et al 2007
Gloves worn inappropriately and associated with less hand hygiene

“The Dirty Hand in the Latex Glove”: A Study of Hand Hygiene Compliance When Gloves Are Worn

Christopher Fuller, MSc; Joanne Savage, MSc; Sarah Besser, MSc; Andrew Hayward, MD; Barry Cookson, FRCPath; Ben Cooper, PhD; Sheldon Stone, MD

Background and Objective. Wearing of gloves reduces transmission of organisms for hand hygiene. Results of previous studies have varied as to whether hand hygiene was low risk and used nonstandardized assessments of glove use and hand hygiene. We show appropriate and whether hand hygiene compliance differed when gloves were worn.

Design. Observational study.

Participants and Setting. Healthcare workers in 56 medical or care of the elderly across England and Wales.

Methods. We observed hand hygiene and glove usage (7578 moments for hand hygiene) and recorded whether gloves were or were not worn for individual contacts.

Fuller et al 2011, ICHE

- 7578 moments of HH
- Gloves worn for 26.7%
- 16.7% of moments when gloves were were low risk
- HH after glove use 40%; no glove use 50% (p<0.01)
Gloves become contaminated with pathogens

Misuse of gloves: the foundation for poor compliance with hand hygiene and potential for microbial transmission?

E. Girou^a,*, S.H.T. Chai^a, F. Oppein^a, P. Legrand^b, F. Cizeau^a, C. Brun-Buisson^a

^aInfection Control Unit, Hôpital Henri Mondor, Assistance Publique–Hôpitaux de Paris, France
^bMicrobiology Laboratory, Hôpital Henri Mondor, Assistance Publique–Hôpitaux de Paris, France

- Observed 120 HCW
- 64% gloves not changed after contact
- 18.3% potential microbial transmission
- 22 gloves sampled: 100% grew bacteria, 86% grew pathogens; 59% same m’org as patient

Girou et al 2004, JHI
Glove use widespread and often inappropriate

Clinical glove use: healthcare workers’ actions and perceptions

H.P. Loveday\textsuperscript{a}, S. Lynam\textsuperscript{a}, J. Singleton\textsuperscript{b}, J. Wilson\textsuperscript{c,*}

\textsuperscript{a}Richard Wells Research Unit, University of West London, London, UK
\textsuperscript{b}Infection Prevention & Control Department, Imperial College Healthcare NHS Trust
\textsuperscript{c}Institute of Practice, Interdisciplinary Research & Enterprise, University of West London

- Observed 163 glove use episodes
- 42\% glove use inappropriate (used for low risk procedures)
- 37\% associated with risk of cross contamination
- Interviewed 25 staff: Decision to wear gloves influenced by emotion and socialisation

Loveday et al 2013, JHI
Validated tool to measure appropriate glove use and risk of cross contamination

The misuse and overuse of non-sterile gloves: application of an audit tool to define the problem

Jennie Wilson¹, Jacqui Prieto², Julie Singleton³, Vivienne O’Connor³, Siobhan Lynam¹ and Heather Loveday¹

Wilson et al 2015, JIP
Aim of my current research on gloves

• Refine methods used in a previous study in a single teaching hospital (Loveday *et al* 2014) to 2 other acute hospitals to:
  – observe patterns of glove use behaviour in relation to ‘My Five Moments of Hand Hygiene’
  – identify key influences on glove use behaviour

• Determine public perceptions of clinical glove use in acute healthcare settings
Study Design

- **Phase 1**: Observational Audit
- **Phase 2**: Qualitative Interviews
- **Phase 3**: Public survey
Phase 1: Observation

- Conducted by IPCNs at 2 hospitals
- Followed an episode of care
  - with or without gloves
- Record every item touched
  - when gloves put on/taken off & HH performed
- Analyse sequence to determine if risk of cross contamination occurred
# Clinical glove use audit

Commence observation when healthcare worker observed to be commencing a task/procedure and continue until the procedure is completed and gloves are removed or hands decontaminated

<table>
<thead>
<tr>
<th>Ward:</th>
<th>Date:</th>
<th>Time start:</th>
<th>Time stop:</th>
</tr>
</thead>
</table>

## 1. Discipline
- Senior nurse
- Domestic
- Sister
- Phlebotomist
- Staff nurse
- Porter
- Agency Nurse
- AHP
- HCA
- Junior doctor
- Student
- Senior doctor

## 2. Location of task performed?
- Clean utility
- Sluice
- In bay/room
- Nurses station
- Other
- Unknown

## 3. Sequence of items/objects touched in this episode of care with points of hand hygiene/glove use

<table>
<thead>
<tr>
<th>Item</th>
<th>HH</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td></td>
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<tr>
<td>3</td>
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<td>6</td>
<td>12</td>
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</tbody>
</table>

Use to categorise the risk of cross-contamination in one or more of ‘My 5 moments of hand hygiene’ at end of the observation

## 4. If gloves used?
- Location put on?
  - Clean utility
  - Sluice
  - Inside bay/room
  - Nurses station
  - Other
  - Unknown
- Location removed?
  - Clean utility
  - Sluice
  - Inside bay/room
  - Nurses station
  - Other
  - Unknown

Was this as close to the point of use as possible/practical?
- Yes □ No □ U/K

Was this as close to the point of use as possible/practical?
- Yes □ No □ U/K

## 5. Adequate hand hygiene after gloves removed?
- According to local policy □ Yes □ No □ U/K

## Analysis

<table>
<thead>
<tr>
<th>Procedure performed during this care episode</th>
<th>Glove used?</th>
<th>Risk of contact with BBF?</th>
<th>Glove use appropriate*?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedure</td>
<td></td>
<td>Was/highly likely to be contact</td>
<td></td>
</tr>
<tr>
<td>Check with healthcare worker if cannot observe</td>
<td></td>
<td>Yes □ No □ U/K</td>
<td>Yes □ No □ U/K</td>
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<tr>
<td>1</td>
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<td>Yes □ No □ U/K</td>
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<td>2</td>
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<td>Yes □ No □ U/K</td>
<td>Yes □ No □ U/K</td>
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<tr>
<td>3</td>
<td></td>
<td>Yes □ No □ U/K</td>
<td>Yes □ No □ U/K</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>Yes □ No □ U/K</td>
<td>Yes □ No □ U/K</td>
</tr>
</tbody>
</table>

* risk of contact with BBF, mucous membranes, hazardous substances (e.g. chemicals, cytotoxic drugs) or patient under isolation precaution.

## Was there a risk of cross contamination?
- Yes □ No □ U/K

Assess from the list of items touched, time of glove use and hand hygiene and procedures undertaken. Indicate at which ‘moment/s’ the potential for cross contamination occurred.

## If yes, which ‘moments of hand hygiene’?
- □ Before contact with patient zone
- □ Before contact with susceptible site*
- □ After contact with blood/body fluid
- □ After contact with patient zone
- □ After contact with healthcare zone

## Comment
Record sequence of items touched

3. Sequence of items/objects touched in this episode of care with points of hand hygiene/glove use

*Use to categorise the risk of cross-contamination in one or more of ‘My 5 moments of hand hygiene’ at end of the observation*

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<tr>
<td>12</td>
<td></td>
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</tr>
</tbody>
</table>
**Identifying inappropriate use and risk of cross contamination**

<table>
<thead>
<tr>
<th>Procedure(s) performed during this care episode</th>
<th>Glove used?</th>
<th>Risk of contact with BBF?</th>
<th>Glove use appropriate*?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check with healthcare worker if cannot observe</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>□Yes □No □U/K</td>
<td>□Yes □No □U/K</td>
<td>□Yes □No □U/K</td>
</tr>
<tr>
<td>2</td>
<td>□Yes □No □U/K</td>
<td>□Yes □No □U/K</td>
<td>□Yes □No □U/K</td>
</tr>
<tr>
<td>3</td>
<td>□Yes □No □U/K</td>
<td>□Yes □No □U/K</td>
<td>□Yes □No □U/K</td>
</tr>
<tr>
<td>4</td>
<td>□Yes □No □U/K</td>
<td>□Yes □No □U/K</td>
<td>□Yes □No □U/K</td>
</tr>
</tbody>
</table>

* risk of contact with BBF, mucous membranes, hazardous substances (e.g. chemicals, cytotoxic drugs) or patient under isolation precaution.

<table>
<thead>
<tr>
<th>Was there a risk of cross contamination?</th>
<th>If yes, which ‘moments of hand hygiene’?</th>
</tr>
</thead>
<tbody>
<tr>
<td>□Yes □No □U/K</td>
<td>1□ Before contact with patient zone</td>
</tr>
<tr>
<td>Assess from the list of items touched, time of glove use and hand hygiene and procedures undertaken. Indicate at which ‘moment/s’ the potential for cross contamination occurred.</td>
<td>2□ Before contact with susceptible site^</td>
</tr>
<tr>
<td></td>
<td>3□ After contact with blood/body fluid</td>
</tr>
<tr>
<td></td>
<td>4□ After contact with patient zone</td>
</tr>
<tr>
<td></td>
<td>5□ After contact with healthcare zone</td>
</tr>
</tbody>
</table>
### Defining risk of cross contamination linked to 5 moments

<table>
<thead>
<tr>
<th>Moment for hand hygiene</th>
<th>Risk of cross contamination</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A patient touched by a contaminated glove/hand</td>
<td>Gloves/hands contaminated if they had contact with any part of the environment outside the patient’s zone before direct contact with the patient’s intact skin. If the HCW touches their own clothing, skin or hair this is not considered part of the ‘patient zone’</td>
</tr>
<tr>
<td>2</td>
<td>A contaminated glove/hand touched a susceptible site e.g. wound, IV access site, phlebotomy</td>
<td>Gloves/hands contaminated if they had touched any other non-sterile objects or patient sites before the aseptic task e.g. patient skin, bed linen.</td>
</tr>
<tr>
<td>3</td>
<td>A glove/hand touched a surface or patient after contact with BBF</td>
<td>Gloves/hands contaminated if used for handling urine or assisting a patient with toileting then touched other surfaces or patient.</td>
</tr>
<tr>
<td>4</td>
<td>Gloves used for contact within patient zone not removed or hand hygiene not performed before contact with an object outside patient zone</td>
<td>Gloves/hands contaminated if touched another patient/objects outside patient zone; hand hygiene not performed after glove removal; or one glove/outer glove (where double-gloves used) removed part way through procedure.</td>
</tr>
<tr>
<td>5</td>
<td>Failure to remove gloves and/or perform hand hygiene after contact with patient surroundings</td>
<td>Gloves not removed or adequate hand hygiene not performed on leaving the healthcare zone.</td>
</tr>
</tbody>
</table>
Type of staff observed

Type of staff undertaking episode of care

Nurse: 49%
HCA: 21%
AHP: 9%
Student nurse: 7%
Doctor: 6%
Domestic: 5%
Phlebotomist: 3%
Porter: 1%
## Results:
Risk of cross-contamination and appropriateness

<table>
<thead>
<tr>
<th></th>
<th>No. episodes</th>
<th>% cross contamination*</th>
<th>No. procedures</th>
<th>% use inappropriate#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital A</td>
<td>69</td>
<td>58%</td>
<td>104</td>
<td>38%</td>
</tr>
<tr>
<td>Hospital B</td>
<td>109</td>
<td>43%</td>
<td>191</td>
<td>68%</td>
</tr>
<tr>
<td>OVERALL</td>
<td>178</td>
<td>49%</td>
<td>295</td>
<td>57%</td>
</tr>
</tbody>
</table>

*p=0.065; #p<0.01
**Differences between staff**

<table>
<thead>
<tr>
<th>Staff type</th>
<th>No. observed</th>
<th>No. risk of cross contamination</th>
<th>% risk of cross contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurse</td>
<td>102</td>
<td>50</td>
<td>49%</td>
</tr>
<tr>
<td>HCA</td>
<td>38</td>
<td>21</td>
<td>55%</td>
</tr>
<tr>
<td>AHP</td>
<td>19</td>
<td>8</td>
<td>42%</td>
</tr>
<tr>
<td>Doctor</td>
<td>7</td>
<td>6</td>
<td>86%</td>
</tr>
</tbody>
</table>

No. episodes of care with gloves = 178
Most common procedures observed

- Mobilisation: 13
- Bed making: 13
- Cleaning: 13
- IV device manipulation: 10
- Handling equipment: 7
- Toileting: 7
- Personal hygiene: 7
- Attention to patient: 6
- Examination of patient: 6
- No particular task: 5

% of all procedures
Moments of HH breached
n = 178 episodes using gloves

Moments of hand hygiene associated with cross contamination

- Moment 1: 21%
- Moment 2: 10%
- Moment 3: 15%
- Moment 4: 30%
- Moment 5: 12%

1. Before patient contact
2. Before a clean/aseptic procedure
3. After body fluid exposure risk
4. After patient contact
5. After contact with patient surroundings
No. breaches per episode

Number of moments breaches in episodes with cross-contamination

<table>
<thead>
<tr>
<th>No. moments breached</th>
<th>No. of episodes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>31</td>
</tr>
<tr>
<td>2</td>
<td>42</td>
</tr>
<tr>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>
Example of how gloves are used

**IV drugs**
- Prepare IV fluids in drug room
- Press button to open door
- Push door open
- Carry drug to bedside

**Central IV line flush and disconnection**
1. Equipment trolley
2. Central line flush
3. IV monitor
4. Central line
5. IV infusion lines
6. Central line flush
7. IV pump
8. IV lines discarded into waste bin
9. Bed controls
10. IV pump

**Same gloves: more than one task**
- Emptied catheter bag
- Gave patient mouth care
- Checked patients blood sugar

25
Gloves commonly used for contact isolation

- They should be used as indicated for SP and for contact with **infectious material**
- Hand hygiene (soap or gel*) is perfectly adequate for decontamination after contact with surfaces etc that may be contaminated
- Infectious material? Think about the route of transmission!

*Except C. difficile and norovirus*

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**Hazards of glove use**

- Porter puts on gloves to collect patient in isolation with Multi-resistant pathogen
- Helps patient into wheelchair
- Leaves room (still wearing gloves)
- Pushes green door release button to exit ward….
- Lift?, Xray department? Etc etc
Phase 2: Qualitative Interviews

• Advert for volunteers in hospital newsletter
• 27 semi-structured interviews
• 16 Nurses; 5 HCA; 3 AHP; 1 Doctor; 2 other
• Questions:
  – Why/when wear gloves; has this changed
  – Influences on glove use; Challenging others; Changing practice
• Thematic analysis
  – Inductive, data-driven
  – Manually coded
Main themes for drivers of glove use

- Barrier – psychological
- Barrier - physical
- Contentment
- Disgust
- Fear

- Policy
- Time-saving
- Availability
- Attitudes
- Conformity

- Peers
- Training
- Experience
- Habit

- Stigma
- Barrier to touch
- Expectations
- Preference (patients)
- Preference (staff)

- EMOTION
- SOCIALISATION
  - Professional
  - Organisational
  - Empathetic

- SOCIALISATION
  - Professional
  - Organisational
  - Empathetic

- SOCIALISATION
  - Professional
  - Organisational
  - Empathetic
Emotion a powerful driver

Perception of risk

“I am going to touch a patient and need to protect myself”

if you didn’t have gloves [for toileting] because you think well what am I going to get from this, you know I am just going to get all sorts of bad stuff on me.

“you have to protect yourself and protect your patients so it’s always good idea to wear them.”

“I find that when I’ve got gloves on I’m less OCD about needing to wash my hands”
But also disgust/fear & sense of safety

**Disgust**
“they’ve got skin conditions where their skin goes brown and nasty, it looks horrible, so I understand why they want to wear gloves”

**Fear**
[Gloves] “make me feel safer, more relaxed, more comfortable, more confident”

**Fear**
Can’t rely on ‘handover’ to tell me if patient has something contagious

**Student challenged about wearing gloves to receive a patient in theatre:**
“she [said] she didn’t know anything about the patient and she wanted to protect herself...”
Gloves also provide a psychological barrier

Psychological barrier
“if I wasn’t wearing gloves [for washing a patient] I think I’d feel a bit kind of awkward”

‘Personal areas’
Obviously if it’s quite personal areas you’re definitely going to wear your gloves...

Strangers…?
“some of the nurses didn’t wear gloves to suction”...
“they’ve built up such a strong relationship with that family they see wearing gloves as quite impersonal”
Empathetic socialisation?

Give impression of hygiene
“people I think like to see that you present yourself nice because they don’t know if we’ve washed our hands”

“I guess for the patient, it might come across that you see them as dirty”

Psychological barrier (more ‘clinical’)
“around their like private areas, I wear gloves just to protect myself and just for them it’s a bit nicer as well”

Interferes with therapeutic touch
“you don’t get to touch the patient, there’s that barrier ....”
You get told on the ward and when you’re doing your training when and where to wear the gloves......it’s just something you do rather than something you overly think about.

It’s probably force of habit. Anything that I am doing away from the nurses station or in a bay, tend to wear gloves.

I would use personal experience and knowledge. I wouldn’t be influenced by somebody saying you don’t need to wear gloves if I feel I need to wear gloves I would wear them.
Organisational socialisation

Doing the right thing
“to make sure you are safe because if something were to happen [...] well you’re liable for it because we’ve not taken proper care”

Its quick & easy
“It takes what, 5 seconds to pull a pair of gloves from a dispenser and put them on”

Availability
What I like about here is that there are always gloves available everywhere and I thinks that’s really important because if you need then, for example in an emergency

Peer pressure
If everybody else in the room suddenly puts gloves on then you think maybe I should be putting gloves on as well... peer pressure in a sense
Confusion about policy & practice

**Efficacy of hand hygiene**

“I mean I am not sure why some of them use gloves to wash patients and others don't”

“we’re not giving a clear enough message” ......”no-one’s ever sure where the information originally came from and it gets twisted...”

“Obviously you’d wear them for washing, dressing and for taking patients to the toilet”
Obviously the idea is to protect yourself and the patient from infection so I suppose you could say that you should wear them all the time, which all of us do to be honest, you don’t know what patients have got infections you don’t know that if you haven’t got information then you need to treat everybody the same so you’re protecting yourself and you’re protecting the public.
Phase 3: The public perspective

Survey monkey questionnaire
Sent out to HCAI Service Users Research forum
• Snowball sample via facebook

1) Views how they feel about HCW glove use
   (n= 142)
2) Experience of HCW glove use (hospital in last 6 months)
   (n = 59)
3) Experience of challenging HCW about glove use
   (n = 26)
Public responses to HCW glove use

- Would like HCW to wear gloves
- Would feel uncomfortable if HCW wore gloves
- Wouldn’t mind either way

<table>
<thead>
<tr>
<th>Activity</th>
<th>Would like</th>
<th>Would feel uncomfortable</th>
<th>Wouldn’t mind either way</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changing my wound dressing</td>
<td>95</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Taking sample of blood</td>
<td>87</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Washing private areas</td>
<td>94</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Helping me off the toilet</td>
<td>71</td>
<td>12</td>
<td>17</td>
</tr>
<tr>
<td>Doctor examination</td>
<td>69</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>Helping me walk to the toilet</td>
<td>75</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Giving me a wash</td>
<td>25</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Helping me eat</td>
<td>75</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>Helping me dress</td>
<td>67</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Taking my blood pressure</td>
<td>73</td>
<td>25</td>
<td>25</td>
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Patients in hospital in last 6 months

- 40% (23/59) reported inappropriate use of gloves by HCW (admin task; no BBF)

- 36 comments
  - Used to protect staff not patient
  - Not changed
  - Used instead of hand hygiene
  - A barrier – touch is important
  - Gloves gave feeling of confidence
  - Expected gloves were clean – free from infection
  - Not asked about latex allergy
I asked the Dr to change his gloves after he answered the phone, adjusted my table, collected bottles and opened doors before taking my blood. He told me they were for his benefit not mine. I politely and firmly insisted he change them, which he did but rather dramatically!
So does glove use matter?

- Compromises hand hygiene
  - HH audit data misleading as does not account for gloves use
  - Gloves used in place of hand gel

- Costs
  - £302,813 in 2013/14 in one 500 bed acute NHS Trust

- Environmental damage
  - disposed of as clinical waste when mostly not contaminated with BBF!
Facilitates transmission of infection

2 patients with Gp A Strep bacteraemia
  - 1 colonised patient; 1 HCW
33% (10 of 34) curtains contaminated with GAS
Triggers for hand hygiene not the same if gloves worn

• Inherent ‘community’ hand washing (Whitby et al 2006)
  – Attitudes developed in the community translated to healthcare setting
  – Patterns established early in life
  – Driven by emotional concepts of ‘dirtyness’ and ‘cleanliness’

• These emotions **increase** trigger for using gloves (in place of hand hygiene) BUT….

• if gloves are worn then hands are perceived as ‘protected’ and critical points for glove removal/hand hygiene may not be triggered
How can this behaviour be changed?

- Identify problems with current practice
- Clearly define & communicate policy
  - Vague references to ‘risk assessment’ not helpful
  - Tackle perverse perceptions of risk & ’infection control folklore’
  - Discriminate infection prevention requirements
    - May require dialogue and reaching a consensus about when gloves should be used/not used
- Structural changes
  - Location of gloves?
  - More individual hand gel dispensers?