

GAMA GLOBAL WEBINAR SERIES
In celebration of World Hand Hygiene Day

Improving patient experience of hand hygiene in hospital

gama healthcare MAY 2023

1

GLOBAL WEBINAR SERIES

Objective:
 To provide our partners and healthcare workers the best support in IPC knowledge and our innovations.

Format:
 Webinar topic align with relevant global awareness days

Possible contact sessions:
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<https://gamahealthcare.com/global-webinar-series>


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9

2

BEFORE WE BEGIN

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- Please place any questions in the **Q&A** section for answering at the end of the webinar.



- Feel free to introduce yourself and where you are joining from in the **chat box!**
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3

Improving Patient Experience of Hand Hygiene in Hospital

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1

Declarations of Interest

- This study was funded by GAMA Healthcare through an unencumbered educational grant. No members of GAMA staff were involved in the design, conduct or analysis of the study.

Acknowledgements

- Thanks to the Infection Prevention Team and staff of the participating NHS Trust.




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2

Why should patient hand hygiene concern us?

- Hospital environment contaminated with pathogens and easily acquired on hands (Mackintosh & Hoffman 1984, Nosh et al 1995)
- Patients will acquire these through contact with the environment during their stay
- Evidence of significant carriage on patient hands
 - Sandlerson & Weissler 1992 (coliforms)
 - Lemment et al 2004 (MDR pathogens, more than on staff)
 - Istenes et al 2013 – 39% hands contaminated with at least 1 pathogen (Cdiff, MRSA, VRE, Gram negs)



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Problems associated with contamination of patient hands

- Acquire colonisation with hospital pathogens
- Transfer to susceptible sites
- Ingest or contaminate respiratory tract (cdiff, resp viruses, noro)

• Evidence for patient hand hygiene preventing HCAI transmission

- Gagne 2010 (↓ MRSA)
- Cheng 2007 ((↓ respiratory viruses)

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Clinical practice issues

- Evidence suggests HCW believe they offer patient hand hygiene; observations and patient reports suggest they don't (Istenes 2012, Arizona 2013, Burnett 2009)
- Patient who need assistance more likely to have pathogens on their hands
- Patient hand hygiene influenced by underlying attitudes (Whitby 2006)
- Critical moments for patient HH not same as SMHH (Landers et al 2012)

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Testing efficacy of hand wipes



- 1) Handwipe no biocide
- 2) Handwipe with biocide (Clinell)
- 3) Soft soap


EU standard method to test superiority and non-inferiority

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Method

- 1) Wash hands for 1 min
- 2) Immerse in E. coli culture
- 3) Allow to dry
- 4) Sample fingers
- 5) Apply test/reference procedure (EU1500 standard)
- 6) Sample fingers
- 7) Difference in no. test organisms pre-post (reduction factor)

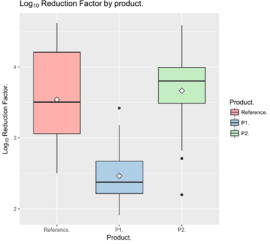


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Result

- Reference soap
 - mean \log_{10} RF 3.54
- P1 (non biocide)
 - mean \log_{10} RF 2.46
- P2 (biocide)
 - mean \log_{10} RF 3.67



An antimicrobial handwipe applied for 60s is at least as good as S&W in removing microbial contamination from hands

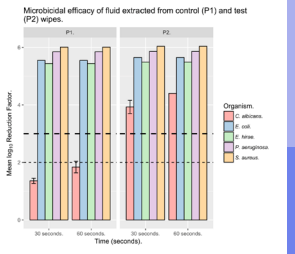
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Efficacy vs range of pathogens

- a) Control hand wipes
- b) Biocide handwipe

- Red – candida albicans
- Blue - E. coli
- Green - Enterococcus
- Purple- Ps. aeruginosa
- Orange - S. aureus

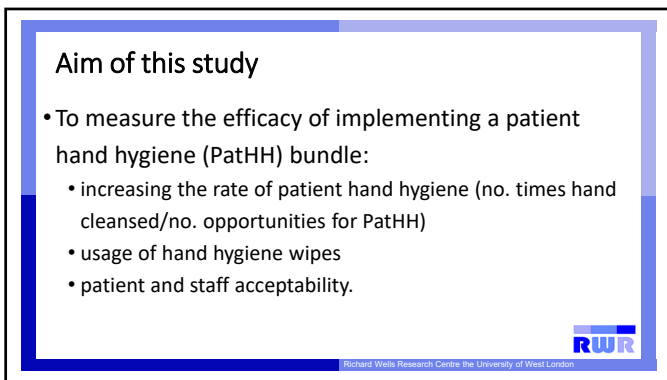


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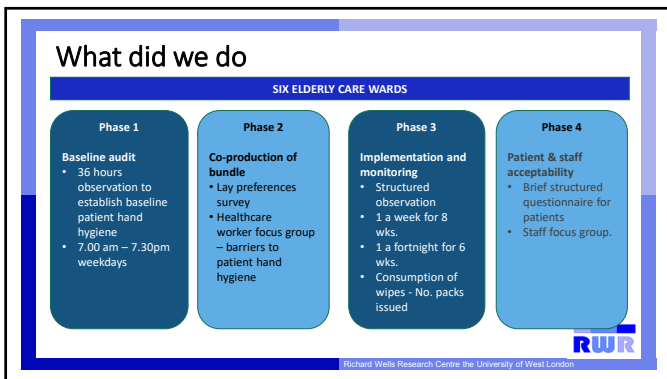
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10




11



12

Phase 1 - Baseline assessment




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Results of baseline observation

Ward	No of PatHH opportunities observed	% with access to HH*	% of opportunities where PatHH occurred
A	29	52%	45%
B	47	13%	11%
C	56	21%	16%
D	26	19%	11%
E	52	33%	4%
F	93	43%	9%
Total	303	31%	13%

*Soap & water, blue wipes, patients own wipes available to patient at point of care and can reach independently




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Frequency of HH availability and occurrence


HH opportunity	Number of opportunities	% where HH available	% where PatHH occurred
Before food/drink	191	29%	5%
Toileting - toilet	33	85%	67%
Toileting - commode	33	30%	21%
Touching nose/mouth	36	0%	0%
Other	10	33%*	33%
TOTAL	303	31%	13%

*all related to patient being assisted to wash in the morning



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The 'blue wipe'

- Generally put on meal trays therefore 'available for PatHH' but patients did not know what it was for
- Staff rarely helped or encouraged patients to use them
- Of 45 blue wipes placed on trays, 6 were used, the others discarded unopened!

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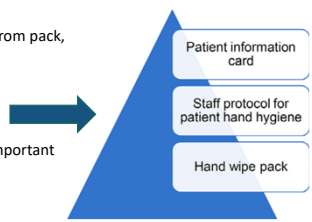
Phase 2 - Patient hand hygiene bundle co- design

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Stakeholder Engagement

- Survey of public
 - Preferred wipe – ease of removal from pack,
 - Effectiveness in cleaning hands
 - Smell and feel
 - Attractiveness of packaging
- Focus group with clinical staff
 - When patient hand hygiene was important
 - Barriers to patient hand hygiene
 - Preferred hand wipe pack
 - Information needs



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Outcome measurement

PatHH opportunities

- Structured ward-based observation for 1 hour/wk on each ward
- Weekly for 8 weeks, then two-weekly 6 weeks (60-70hrs)

Consumption of wipes

- No. packs issued (estimate cost of intervention)



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Compliance with patient hand hygiene

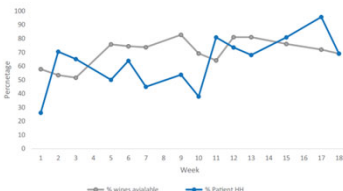



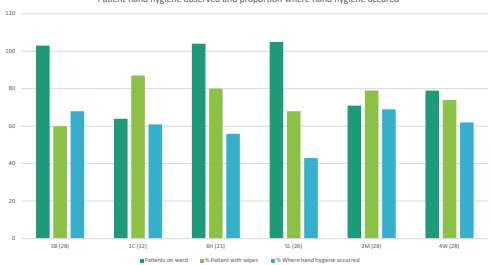

Fig 3. Trend in compliance with patient hand hygiene during the 18-week intervention period (June to October 2018). Familiarisation period week 1-2, feedback reports given in week 3 and 11



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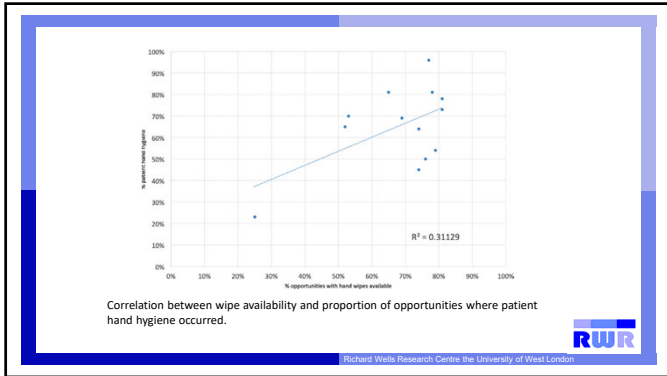
23

Patient hand hygiene observed and proportion where hand hygiene occurred

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25

Phase 3 - Summary of findings

- When patients are prompted, they will clean their hands
 - Cognitively impaired – if wipe placed in hands, then automatically wipe.
 - Very few patients refuse.
- Packs of wipes visible on beside table - prompts staff to use them.
- Packs of wipes on breakfast trolley
 - Can be handed out to patients who don't have any on their table
- Staff facilitation and feedback is critical – not all staff do it
- Patients may not see HH before meals as necessary

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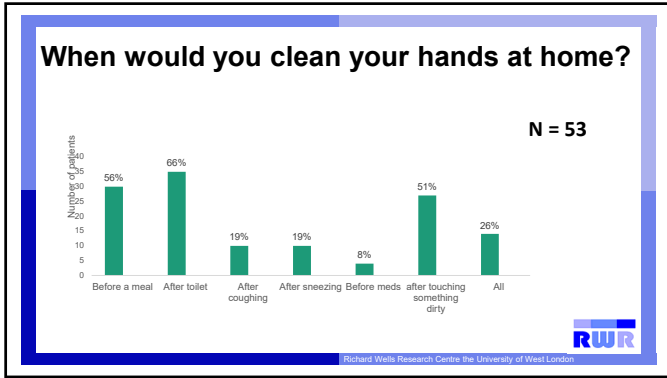
Phase 4 - Patient and Staff Acceptability

Patient Feedback

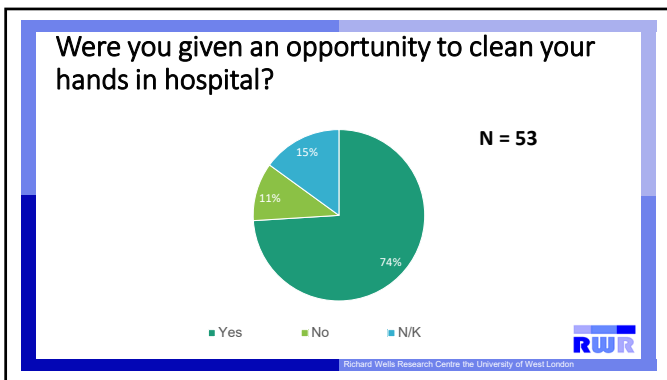
- Questionnaire given to patients on study wards
- Data collected in last month of study
- 53 questionnaires completed
 - 38 patients had used hand wipes
 - 42 patients had used soap and water

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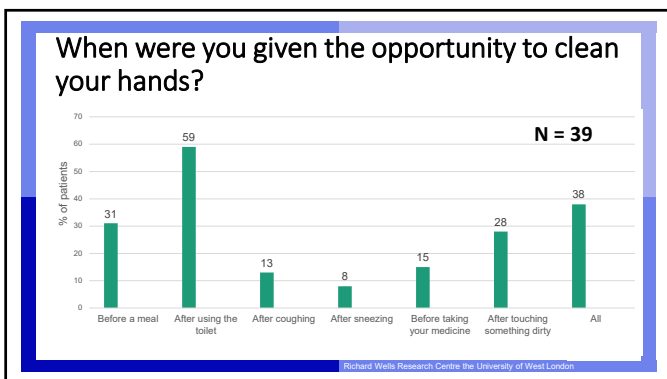
27



28



29



30

Comments on not being given opportunity to clean hands

- The staff were too busy
- When couldn't get myself up out bed but no one came to help
- Usually think for myself to wash hands all the times
- Have own wipes use regularly
- Always clean hands
- Can't always get in the toilet (bathroom)
- Forgot
- Not bothered

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Were you given a pack of wipes?

N = 53

Response	Percentage
Yes	79%
No	13%
N/K	15%

- Didn't realise they were hand wipes not 'general cleans'
- Prefer soap and water
- Allergic to them

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Patient opinion about wipes

N = 53


Statement	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
The wipes were easy to get out of the packet	~55%	~35%	~10%	~0%	~0%
The wipes made my hands feel clean	~65%	~25%	~10%	~0%	~0%
Having the hand wipes made it easy for staff to help me clean my hands	~60%	~25%	~15%	~0%	~0%
Having the hand wipes made it easy for the staff to help me clean my hands	~60%	~25%	~15%	~0%	~0%
There were enough hand wipes in the packet for me to use during my hospital stay	~55%	~25%	~15%	~5%	~0%
I needed more than one packet of hand wipes for my hospital stay	~35%	~25%	~20%	~15%	~5%
The information provided about cleaning my hands was helpful	~55%	~25%	~15%	~5%	~0%
I think providing wipes for patients to clean their hands, is a good idea	~65%	~25%	~10%	~0%	~0%

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Staff feedback – focus group and survey

- Patients liked the wipes and some started to ask for them
- Important that the wipe pack is easy to open
- Made it easier for staff, good to have them readily available
- Liked being able to clip them to bed/table
- Promotes good practice for when patient goes home
- Will continue to encourage staff to support PatHH and use of wipes




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Supporting Patient Hand Hygiene


Organisational Support	Leading by Example
Practical and Accessible Interventions	Raising Awareness



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Thankyou – Any Questions?



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Q&A



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Professor of Healthcare Epidemiology
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Director of Research
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4

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5
