

Can you use cameras for hand hygiene auditing?

Why would you?

And what would get in the way?

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July 17, 2024

Overview

- ▶ Background and the warrant for the concept
- ▶ Exploration of the utility of cameras for hand hygiene compliance auditing
- ▶ Examination of the barriers to the use of cameras in the clinical setting



Background

- ▶ Hand hygiene compliance according to the 5 moments is recognised as pivotal in the control of HAIs
- ▶ Direct observation is the mandated method for collection of data recording HCW compliance with hand hygiene
- ▶ Increasing recognition that there are problems with direct observation
- ▶ Electronic measures offered as a solution – but unable to measure compliance according to the WHO 5 moments
- ▶ **???** Do video camera offer a solution and if so – what would the barriers be?



Hand Hygiene Compliance and Direct Observation

- ▶ The recommendation to monitor hand hygiene compliance is a key element of the WHO guidelines
 - ▶ Vital part of behaviour change programs
 - ▶ Provides a base line against which to measure improvement
 - ▶ Data used as a quality indicator
- ▶ Direct Observation is the recommended method of data collection
- ▶ Considered the “Gold Standard” approach to data collection
- ▶ Involves an Auditor being present in the clinical environment – observing and recording hand hygiene behaviours



What does the literature
say about direct
observation?

The good

- ▶ Able to audit compliance according to the WHO “My 5 Moments” framework
- ▶ Can place compliance/non-compliance within the context of clinical care
- ▶ Allows differentiation according to HCW group.
- ▶ Allows for the gathering of adjunctive information
 - ▶ Glove use
 - ▶ ANTT
 - ▶ Patterns of non compliance
- ▶ Simple methodology
- ▶ Reinforces the importance of hand hygiene
- ▶ Provides the opportunity to give feedback to HCWs

The not so good

- ▶ The Hawthorne effect (observation bias)
- ▶ Influence of Social Power inerrant in the auditor ↔ HCW relationship
- ▶ Observer bias
- ▶ Selection bias
- ▶ Time consuming (expensive)
- ▶ Auditor skill – fatigue
- ▶ Physical barriers
- ▶ Ethical dilemmas
- ▶ Failure/reluctance to give feedback

What do local clinicians think about direct observation

- ▶ In depth interviews with 27 clinicians with experience and expertise in various aspects of hand hygiene auditing
 - ▶ CE “Content Experts” – participants who had state or national oversight of hand hygiene programs
 - ▶ MOD “Managers of data” – participants who had institutional (Health network or hospital level) oversight of hand hygiene programs, Infection control clinicians, responsibility for training auditors
 - ▶ COD “Collectors of data” – frontline auditors
 - ▶ ROD “Recipients of data” – department managers who received the results of hand hygiene audits (Nurse unit managers).

What they liked....

- ▶ On the spot feedback

- ▶ *"You can give feedback at the time and it's contextualised to what they are doing" [CE1].*

- ▶ Being in the clinical setting

- ▶ *"I think the thing that people overlook is that you never get the opportunity to stand back and observe... so it's not just hand hygiene that you see...there's other things that you would get to observe that go on, on a daily basis, that you might not notice if you're just busy going about your business" [CE5].*

- ▶ Patient safety

- ▶ Improving practice
- ▶ Intervening (*"Jumping In"*)

What they didn't like

- ▶ Not “accurate”

- ▶ *“I think that our methodology of collection... we're very confident from OUR side we're collecting our Moments to be true... but when it comes to actual care the patients are being provided... I would love to know whether the same hand hygiene Moments are in place when we're not there' I'm just not confident that the data's true... I'm not confident that people are actually practicing this way” [MOD5].*

- ▶ Resource intensive

- ▶ *“It's just a hugely, ridiculously resource intensive process” [CE2].*

- ▶ Associated with negative feelings about hand hygiene - punitive

- ▶ *“You get told... ‘why don't you go and do some real nursing' or... or... you know... ‘do something useful rather than stand there observing people’” [MOD7].*

FEEDBACK


Frequency	Given by Auditor when conducting direct observation	Received by Auditor when they are the subject of direct observational auditing	Received by FLHCW when they are the subject of direct observational auditing
Never	0% (0)	6% (3)	14.7% (5)
Rarely	6% (3)	34% (17)	29.4% (10)
Sometimes	22% (11)	38% (19)	29.4% (10)
Often	46% (23)	16% (8)	17.6% (6)
Always	26% (13)	6% (3)	8.8% (3)

Why don't auditors give feedback?

Responses	Proportion (Count)
Never had a negative response to feedback	16% (8)
Being ignored	36% (36)
Defensive body language	52% (26)
Gestures (e.g. eye rolling)	44% (22)
Negative comments (e.g. Insults)	40% (20)
Being yelled at	4% (2)
Having a door shut or curtains drawn in their face to prevent auditing	28% (14)
Other (surveyed free responses): <ul style="list-style-type: none">• "Not being taken seriously"• "Denial and excuses"• "Hearing but not listening"• "Rationalisation of noncompliance/excuse making"	8% (4)

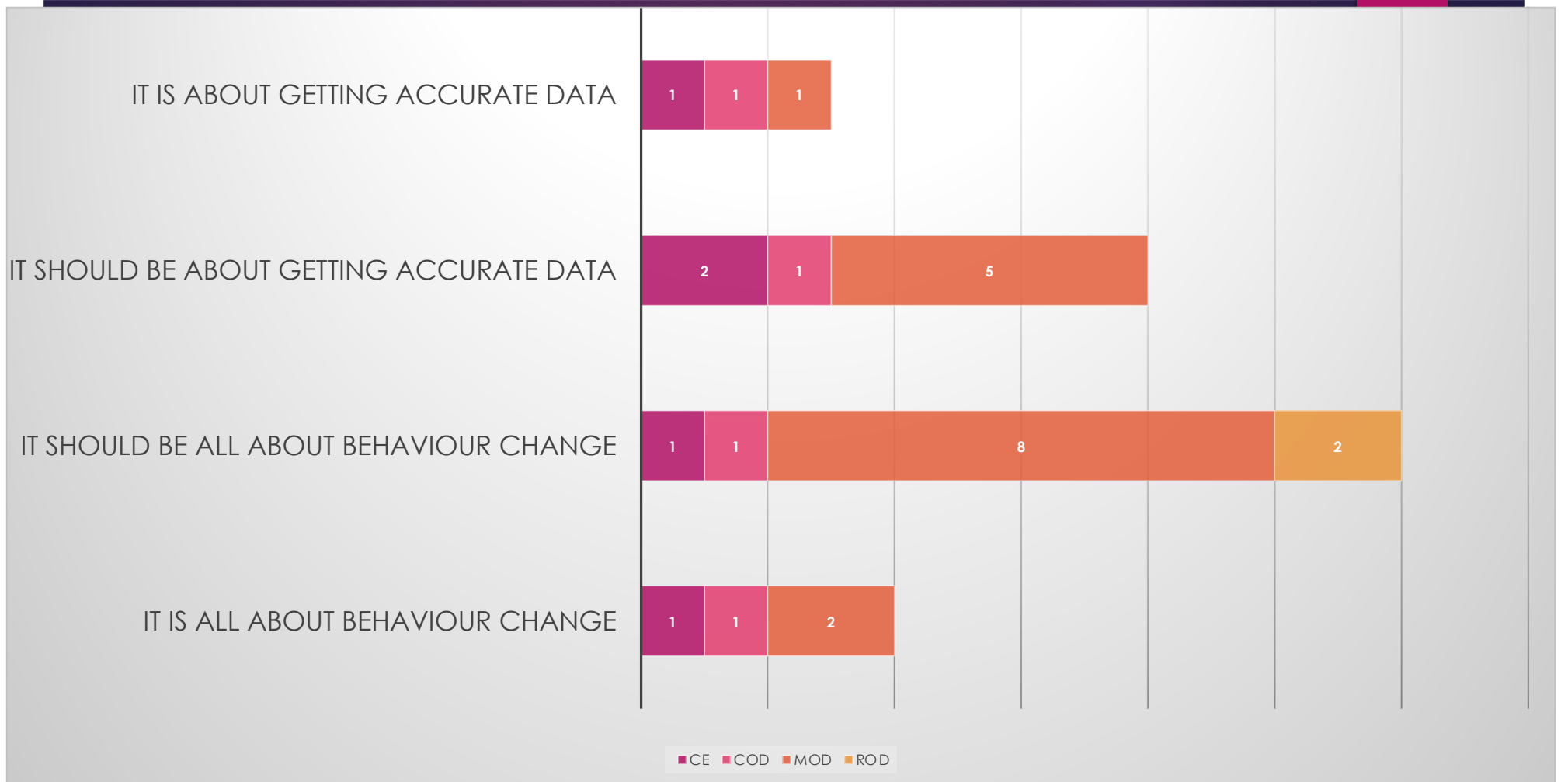
The problems with giving feedback

- ▶ *“I’ve found that with some of our auditors... particularly nursing staff... they don’t want to audit medical staff... they’re not willing to audit someone whose practice is poor because they’ve had a run in with them before” [MOD2].*
- ▶ *“No one takes feedback very well... I can tell you... I do it so gently... I am almost apologetic about correcting them and... ah... they don’t take it well” [MOD10].*
- ▶ *“I mean I think it can be quite confronting ... not so much for us [IPAC clinicians] ... but maybe... I think the ward auditors would find it confronting to be giving feedback... but it is still confronting for us all” [MOD1].*



The need to clarify the
purpose and role of direct
observation in relation to
Hand Hygiene compliance.

WHAT IS OUR PRIMARY AIM WHEN WE ARE PRESENT IN THE CLINICAL SETTING
OBSERVING HCW HAND HYGIENE BEHAVIOUR





Getting an “accurate” picture of Hand Hygiene practice?

- ▶ Accurate = realistic, representative... or what “normally” happens
- ▶ Is this actually possible with direct observation?
 - ▶ Covert audits (secret shopper)
 - ▶ Discrete audits
 - ▶ Short duration audits
 - ▶ Frequent audits – “habituation”
- ▶ *“Oh... I don't see that I'm there to change their behaviour... I mean I'm an auditor... my job is to audit” [MOD6].*

“It should be about accuracy”

- ▶ “Absolutely... people change their practice when they see us... yeah... people actually gel their hands and come up and rub them... not in our faces... but rub them... ‘see I’m rubbing’” [MOD5].
- ▶ “Everyone knows who the auditors are so the minute they’re out... they’re washing their hands ... washing their hands unnecessarily even..... you know ... no matter how much you educate ... people just come their own understanding ... come to their own knowledge ... it's ... it's crazy sometimes “ [MOD10]
- ▶ “Everybody knows what I’m doing ... what's happening ..occasionally I get a .. a ... a ..query to what I’m doing but usually as soon as they see me they go and wash their hands very purposefully” [COD3]
- ▶ **“Even though we always achieve the benchmark - I think it’s probably more around 30-50% compliance in real life” [MOD14].**



Is it about behaviour change then?

GIVING EDUCATION AND FEEDBACK WHEN YOU PERFORM DIRECT
OBSERVATIONAL AUDITING ?

An “Accurate Number” or a “Target”... does the “benchmark” affect the process

- ▶ *“I think the benchmark has a big impact on it too... means that people can audit without actually...”*
- ▶ *“Everyone’s so focused on the numbers... they’re... percentage” [CE4].*
- ▶ *“I think that it has changed over the years... the aim has... morphed now into a hospital performance indicator... has moved into the... performance measure that I don’t necessarily agree with” [CE2].*
- ▶ *“Executive... they just want the number... and they want it to be... they’re more interested in the number than the actual behaviour” [MOD9a].*
- ▶ *“... the organisation gets hung up on the numbers because they’re hung out to dry by the commission and HHA” [MOD12].*

“I think that... often I was sent out to... Ah... Audit that way... to make the figures look good” [MOD9b].



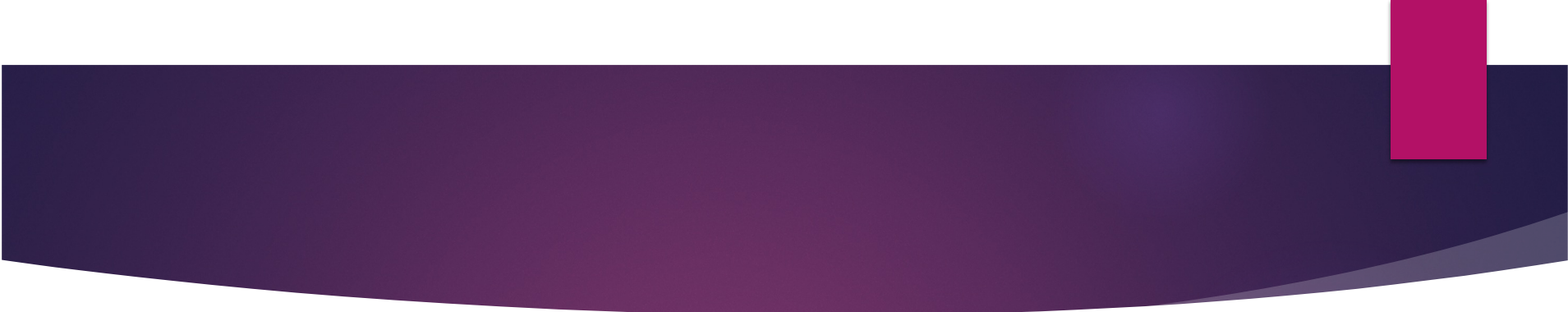
“Using” selection bias

- ▶ *“Intentionally excluding groups who get it wrong... I suspect for people to get high marks and above benchmark... perhaps they limit the number of medicos that they include because they know they bring the numbers down” [MOD15].*
- ▶ *“... (laughs)... to end up with a better result... yeah... Pick your people you watch... pick how long you watch them for... pick your wards that you observe... you know... your number of Moments...” [CE5].*



It is about behaviour change – the number doesn't matter

- ▶ *“Oh, I'm an overt, I... I don't believe in covert auditing... I'm there as a colleague ... I'm there as a person to support people understanding what they could do better next time” [CE1].*
- ▶ *“I think it's about changing behaviour I really .. and that's my focus” [MOD3].*
- ▶ *“yeah I think the goal would be that you want to influence behaviour it's the best outcome for the patient” [MOD9a].*
- ▶ *“it's about that cultural change, behaviour change and..... I'm trying ... I don't get hung up really on the numbers” [MOD12].*

- 
- ▶ *Because it's easy to collect data and it's not easy to change behaviour... I'll just keep collecting data until we get what we want... it's... it's like weighing the pig over and over and hoping that it gets fat... it's not going to make the pig fat... you've got to FEED the pig... you can weigh it a hundred times and it'll never make it fatter... you've got to FEED the pig... and we just keep weighing the pig... It's horrific!!!" [CE1].*

What are we trying to achieve ?



The purpose of direct observation is...

- ▶ 1. *It's all about getting accurate data,*
- ▶ 2. *It SHOULD be all about getting accurate data (but the direct observation method means we can't),*
- ▶ 3. *It's all about culture or behaviour change ('the number' doesn't matter) and*
- ▶ 4. *It SHOULD be about culture or behaviour change (but the drive for 'the number' gets in the way).*

Electronic Monitoring – the solution?

Advantages

- ▶ Large comprehensive data sets
- ▶ Little or no input from human auditors
- ▶ Can operate 24-hours a day, 7 days a week (“continuous oversight”)
- ▶ Not impacted by observer or selection bias, less Hawthorne effect
- ▶ May prompt behaviour change



ELECTRONIC MONITORING SYSTEMS – DEFINITIONS AND SYSTEM PARAMETERS

- ▶ **Hand Hygiene Product Usage or Event Counting Systems**
 - ▶ dispenser activation or count based systems
 - ▶ Wi-Fi enable systems with automatic down load
 - ▶ Calculated denominator/dispenser count numerator
- ▶ **Tag-Based, Zone and Locational Systems**
 - ▶ Defined patient zone
 - ▶ Entry and exit monitored
 - ▶ Hand-hygiene occurring in conjunction with entry/exit recorded

Electronic systems – perhaps NOT the panacea?

Disadvantages

- ▶ Use of proxy measures of compliance
- ▶ Expense & complicated to maintain
- ▶ Accuracy
 - ▶ Double moments
 - ▶ Patient or relative hand hygiene
 - ▶ HCW beliefs
- ▶ Alarm Fatigue
- ▶ Staff concerns about surveillance (Big Brother is Watching)



Why cameras (and not some other electronic approach)

VIDEO RECORDING IN HEALTH CARE

- ▶ Video recording provides rich data and allows detailed observation and review
- ▶ An important tool to allow HCWs to reflect upon their own performance – video reflexivity
- ▶ Used in a number of settings as part of quality improvement processes (resuscitations in trauma and emergency departments, fluoroscopy and endoscopy units as well of intraoperative recording)
- ▶ Use within healthcare facilities to monitor staff safety more generally, such as Security CCTV or body cameras, or for patient falls or behavioural management



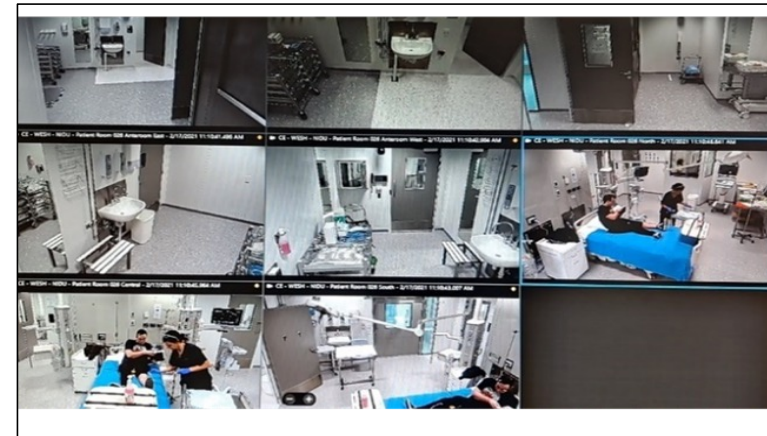
A Video Based approach to Hand Hygiene Auditing?

Potential Advantages

- ▶ Can collect large amounts of data without human intervention
- ▶ The recording of all practice occurring within the field of the camera means that both selection and observer bias is eliminated
- ▶ Accuracy
 - ▶ Distraction
 - ▶ Completeness
- ▶ Time savings
 - ▶ Speed of review
 - ▶ Convenient time of review
 - ▶ Validation /Inter-auditor reliability
 - ▶ Use of external auditors
- ▶ Rich data
 - ▶ can be used for multiple/related purposes
 - ▶ Allows the scope and nature of the “problem” to be more clearly understood
- ▶ Contextual, individualised feedback

A role for cameras – what the clinicians thought

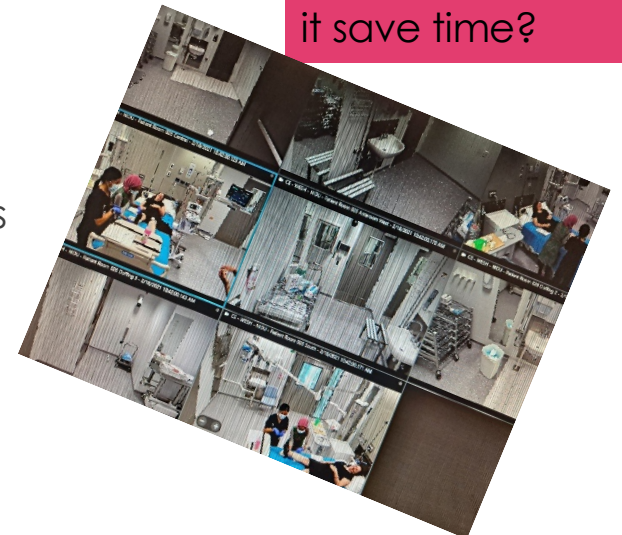
- ▶ *“Yeah, I think it would be more accurate because you're not aware... like... you'll be aware that you're being watched, but not like acutely aware of it... like it'd be sort of more of a... background thing rather than it being like oh suddenly there's a person watching me do this. Yeah so, I think it wouldn't be at the forefront of your mind... so you'd be going about doing your normal job... .doing normal things.” [FLHCW2].*
- ▶ *“It would certainly speed up the audit process as far as I can see because you then... just flick through and see there... this is the Moment here and get... you're not sitting through hours... or standing through hours of tedious auditing...” [AUDITOR1].*



Exploring the feasibility and time efficiency of using cameras for hand hygiene auditing

- ▶ Testing the concept
 - ▶ 2 days of trial in simulation at Westmead Hospital (NBC)
 - ▶ 6 Scenarios
 - ▶ 5 HCW's
 - ▶ 5 "actor" patients
 - ▶ "fake" wounds, body fluids and other consumables
 - ▶ Multiple cameras

Can you actually audit according to the 5 moment framework using a VMS and does it save time?



Did it work.....?

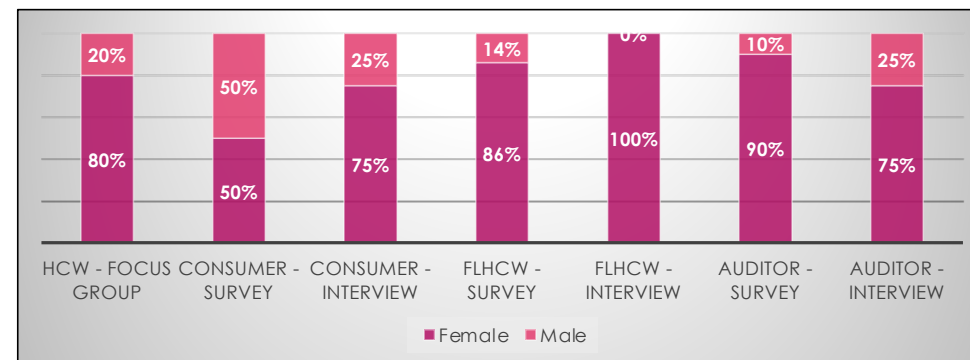
- ▶ In short YES!
- ▶ Total simulation duration = 206 minutes
- ▶ Total moments captured in that time = 111
 - ▶ Compliance rate 88% (range 70-96%)
- ▶ Time taken to complete auditing from footage = 120 minutes
- ▶ Cost per moment (auditor wage = \$50/hr)
 - ▶ 111 moments in 206 minutes = \$1.55 per moment
 - ▶ 111 moments in 120 minutes = \$ 0.89 per moment



Exploring HCW and consumer attitudes to using cameras for hand hygiene auditing

- ▶ Group interviews with trial participants (5)
- ▶ Online Surveys - HCW's and Patients (108)
 - ▶ HCW Survey with branching for Auditors and Non-auditors
 - ▶ Consumer/patient survey
- ▶ In-depth Interviews
 - ▶ Auditors (8)
 - ▶ Frontline HCW's – non-auditors (8)
 - ▶ Consumers/patients (8)

What do people THINK about the use of cameras ?
And is this going to be a barrier ?



What HCW and Patients need to find the use of acceptable

Protection of Patient Privacy

- Proximity activation
- Facial pixilation/blurring
- Camera position
- No audio
- Recording in progress indicators
- Pt/HCW control

Safety for HCW

- Fears
 - Surveillance
 - Making a mistake
 - Embarrassment
 - Punitive consequences
 - Legal consequences

Feedback – how and when

- Loss of immediate feedback
- Contextual feedback with VMS
- Quality of feedback

Open Communication

- Consent
- Retention/deletion
- Confidentiality
- Legality/legal issues

Better data – better feedback – better care

- Validity & reliability of the data collected
- Efficacy and efficiency of reviewing the data
- Rich & contextual data

5 themes

Protecting Patient Privacy

- Participants offered 6 technical and methodological measures or considerations to protect patient privacy and which would increase the acceptability of VMS

Proximity activation of cameras

- ▶ Recording video, not audio

Facial pixilation and blurring

*

- ▶ Recording in progress indicators

- ▶ Camera Position

- ▶ Patient and HCW control of the VMS

Protecting Patient Privacy

- Participants offered 6 technical and methodological measures or considerations to protect patient privacy and which would increase the acceptability of VMS

Proximity activation of cameras

- ▶ *“Yeah... I think it... yeah I think that would improve, improve my acceptability of it... If it only activated. If I could be 100% guaranteed and it only activated... if... when the healthcare worker came into the room, I would HATE to be in a room where I was being filmed all the time... as a patient... at your lowest point. I would hate it. Absolutely.”*
[PATIENT8].

Protecting Patient Privacy

- Participants offered 6 technical and methodological measures or considerations to protect patient privacy and which would increase the acceptability of VMS

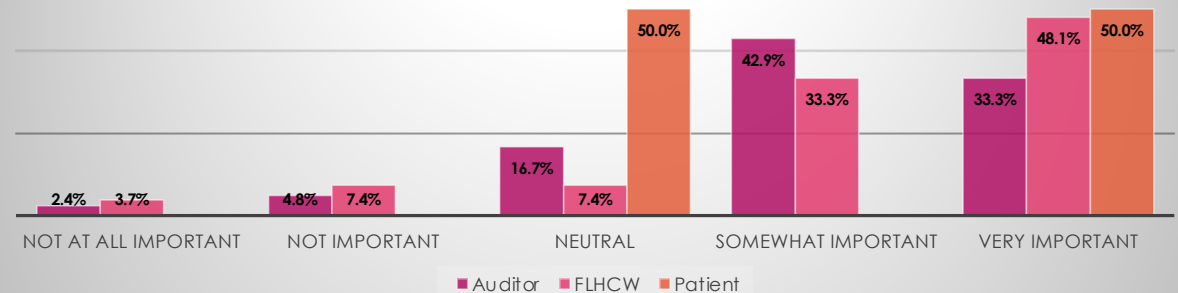


Facial pixilation and blurring

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- ▶ *“Absolutely, I felt much more at ease. But obviously, people would probably still be identifiable by mannerisms and their body shape and size and things like that. But automatically... face pixilation that... definitely... yeah.” [FLHCW3].*

Facial blurring or pixilation



Protecting Patient Privacy

- Participants offered 6 technical and methodological measures or considerations to protect patient privacy and which would increase the acceptability of VMS

- ▶ *“The head of the bed would probably be an appropriate one and then that way the patient might feel a bit more secure as well because it's not their face right, front and centre all the time either. And then obviously if they are having anything done, down below. Again, a bit more privacy. In that respect as well.” [FLHCW3].*
- ▶ *“Yes, good idea, because you're only getting the back of the patient, which is more private.” [PATIENT4].*

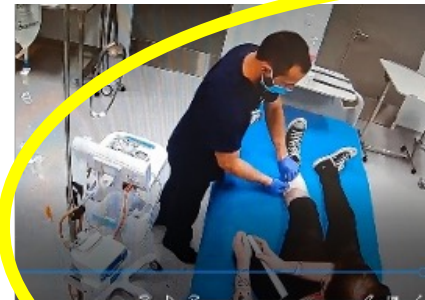
▶ Camera Position



Side view camera placement



Front on camera placement



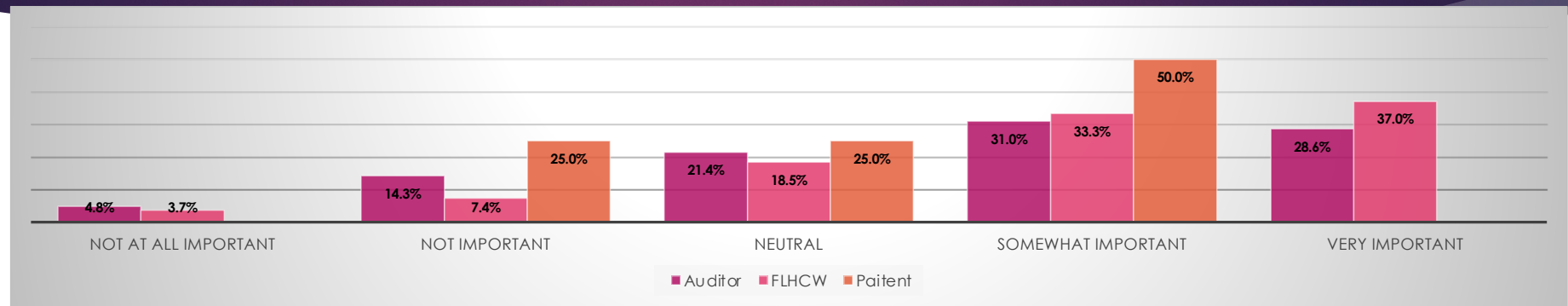
Rear view camera placement



Rear view camera placement with blurring

Protecting Patient Privacy

- Participants offered 6 technical and methodological measures or considerations to protect patient privacy and which would increase the acceptability of VMS

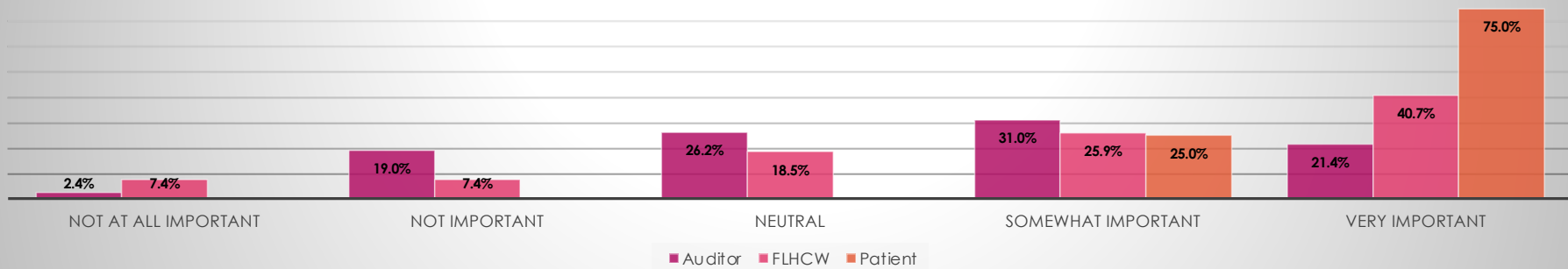


- ▶ Recording video, not audio

- ▶ *"Say... there's... you know a woman with a fever of unknown origin... I'm gonna have to ask her about STI's, PID that kind of stuff... I don't want people to self-censor because there's cameras..." [GIDr1].*
- ▶ *"If you have an interaction with a patient and they want to divulge something that's quite personal or something like that... Yeah... Yes, I think that would be... They might feel safer with that one." [FLHCW1].*

Protecting Patient Privacy

- Participants offered 6 technical and methodological measures or considerations to protect patient privacy and which would increase the acceptability of VMS



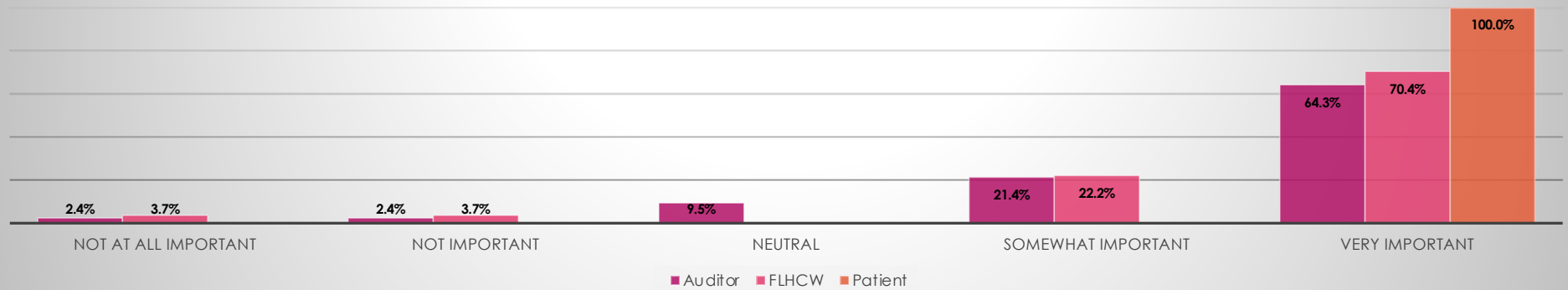
- ▶ *“In terms of healthcare workers, I feel like it might actually skew the data a bit more... because if the nurse recognizes that very camera is filming... that it would bring their attention to it... Then they’d be thinking Oh hand hygiene... Hand hygiene.” [FLHCW3].*

- ▶ Recording in progress indicators

- ▶ *“Yeah, yeah, that might be useful. So that they’re, I guess, is a solid... yeah... Just to confirm that what’s been said is how it’s actually applying that you can kind of find some way of knowing when it’s recording or not” [PATIENT3].*

Protecting Patient Privacy

- Participants offered 6 technical and methodological measures or considerations to protect patient privacy and which would increase the acceptability of VMS



- ▶ *“Yeah sort of like... Oh we’re doing this right now so we’re going to turn this off or whatever... like you were putting in a catheter or doing whatever. I think that would be helpful in some occasions, especially for yeah people who are concerned about privacy.” [FLHCW2].*

- ▶ Patient and HCW control of the VMS

Making HCW Feel Safe

- Interrelated array of fears expressed by HCW participants which acted as barriers to the acceptability of the approach
- A range of considerations that would make HCW feel more or less safe when using VMS for hand hygiene



- (a) Surveillance – big brother
- (b) Making a mistake – performance anxiety
- (c) Embarrassment - loss of face
- (d) Punitive consequences - used against me
- (e) Legal consequences – litigation VS exoneration

Fear of

Making a mistake – performance anxiety

- ▶ “...I think a lot of us... we’re very, a lot of us are very sort of perfectionist, and Type A personalities and to be caught up, making a mistake... is sort of a bit shameful and... A loss of face it’s sort of... really... Yeah, and I think we have quite high standards and we’re hardest on ourselves actually.” [FLHCW7].

Embarrassment – loss of face

Surveillance – big brother

- ▶ “It’s a bit “Big Brotherish” to some people and definitely a lot of people will see that as invasion of their privacy... not necessarily the patient’s privacy it could just be the HCWs.” [AUDITOR1].

Punitive consequences

– used against me

- ▶ “You’d be... you know... have some black marks against your name in the personnel file or the... to go against you if you were going for promotion or a job or worse... you know. Reporting to authorities for disciplinary action yeah or... who knows... it... depends on the nature of the breach. I mean, think that missing a step in your hand hygiene wouldn’t be an offence that’d be serious enough to cause you to be struck off the register. But I do think that there is that sort of underlying fear of retribution and punishment.” [FLHCW7].

Legal consequences – Litigation vs exoneration

- ▶ “I would think that you wouldn’t want a patient to be able to use that against you? So you know, I, people when they’re sick, have the strangest views on things and don’t always... And, you know, I would think that you wouldn’t want it to come under Freedom of Information... unless it was a criminal offence I would think.” [AUDITOR6].

Open Communication

- The acceptability of VMS for hand hygiene to those subject to the use it depends on their comprehension of both the processes involved and the rationale behind those processes.
- Central to this theme were participants' strong needs and assurances that the process would be open and upfront
 - ▶ *"It's just about transparency and understanding... people having a broader understanding... as long as there's some kind of clear protocol" [FLHCW7].*
 - ▶ *"Just transparency when it comes to it, so obviously just up front, just talking about everything... like a guarantee that it's being used for the reason stated" [PATIENT6].*

Open Communication



Consent

- ▶ *“I feel like if you asked for consent, it should be fine... as long as they provide consent... it wouldn't be an invasion of privacy and gives them [patients] reassurance and the reason why” [FLHCW6].*
- ▶ *“You have to opt out rather than opting in, or something like that. So, it's more like the default is that it's [filming] done. You've got the option to opt out.” [PATIENT3].*
- ▶ *“I think it's probably um... can be verbal consent, but it needs to be documented. When that happened, you know.” [AUDITOR6].*

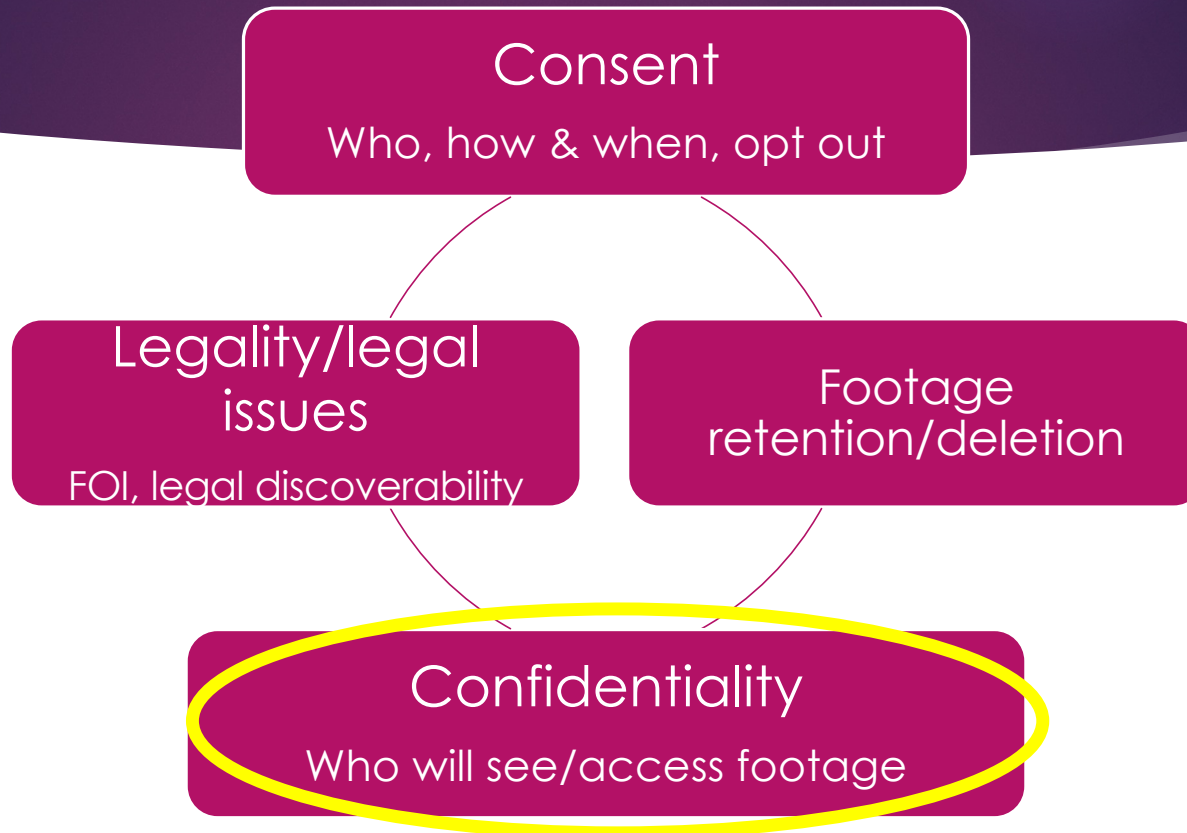
Open Communication



Footage retention/deletion

- ▶ *“So I would want to know... if you’ve looked at that, and there’s nothing of any value beside auditing, the Moments and that’s been recorded, then that can just be deleted. You know, because if it’s all gonna be gone within a week... or 48 hours... depending on how quickly people get to review the data... so I think that would be reassuring because it’s not going to be kept for a long period” [AUDITOR7].*
- ▶ *“I think it’d be nice to be told it’s being deleted so that you’re not worried about ... is it going to be sitting around for years on end” [PATIENT2].*

Open Communication



Confidentiality

- ▶ *“Just the people that are accessing it I guess too. You wouldn’t want a free for all for everybody. I mean... I honestly don’t really mind for myself, but I do think that if there was a situation where... you know, let’s say, you know, they have to get all the clothes off and you’re lying there naked, even if it’s a non-sexual nature, I’d be fine with it... As long as I was, 100% sure that that footage was staying where it was meant to be, I don’t care if a billion people looked at it, as long as it wasn’t being used for the wrong reasons and in today’s society. That’s the big problem.” [PATIENT5].*
- ▶ *“What would be the ability for the auditors to see the film footage. So that would be the other thing like... who has access to it? People up the food chain can’t swoop in and seize it? That would be something to think about... The governance.” [FLHCW7].*

Open Communication

Consent

Who, how & when, opt out

Legality/legal issues

FOI, legal discoverability

Footage retention/deletion

Confidentiality

Who will see/access footage



Legality/legal issues

- ▶ *“I would think that you wouldn’t want a patient to be able to use that against you? So you know... people when they’re sick, have the strangest views on things and don’t always... And, you know, I would think that you wouldn’t want it to come under Freedom of Informationunless it was a criminal offence I would think.” [AUDITOR6].*
- ▶ *“Yeah.... And that’s ... it goes both ways... there could be situations where the footage could be used for the staff member’s benefit as well, because patients often do things and say things that are not true.” [AUDITOR7].*

Legality/legal issues

- ▶ *“I would think that you wouldn’t want against you? So you know... people views on things and don’t always... wouldn’t want it to come under Fr criminal offence I would think.” [A*
- ▶ *“Yeah.... And that’s ... it goes both the footage could be used for the patients often do things and say thi*

Information and education to improve acceptability....

- Public promotion
- Education campaigns
- Staff forums – rapport & relationships
- Evidence of....
 - Benefits
 - VMS works as promised
 - Non-punitive management

The how and when of feedback

- How and when feedback about hand hygiene compliance using VMS data would be given was another significant consideration when it came to its acceptability

Three subthemes;

- a) Loss of immediate feedback with VMS;
- b) Contextual Feedback with VMS data; and
- c) Quality of feedback

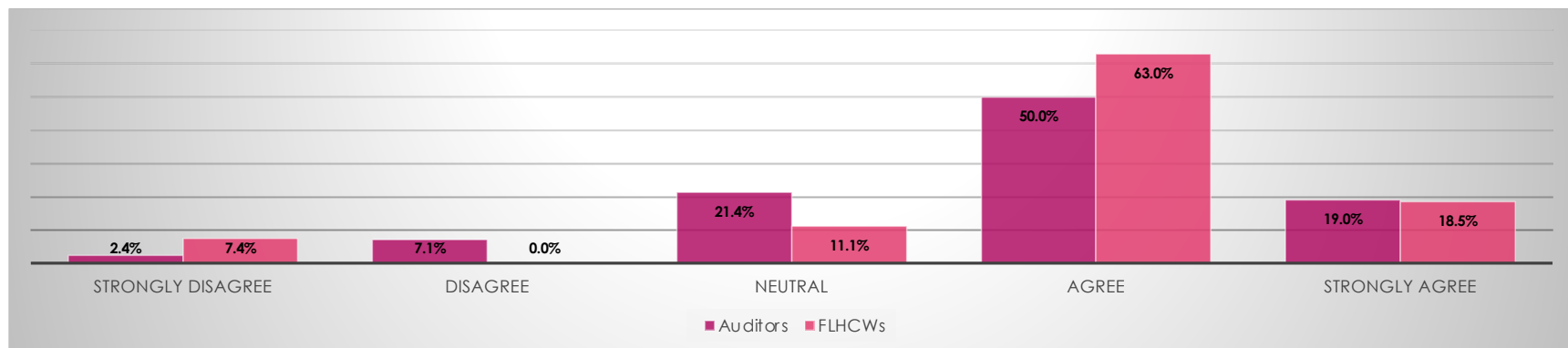


Loss of immediate feedback

- ▶ *“With traditional hand hygiene audit I can give feedback and it’s immediate feedback and that’s the most important thing because you stop the process and say “I’m auditing” here you’re not following the 5 Moments you need to stop and re-think this because it’s actually unsafe... now by delaying with the video it’s... this is never gonna happen” [AUDITOR1].*
- ▶ *“I’d say it’s only sometimes... but it’s nothing lengthy... it’s just “Oh cool. You did great” that’s it... [FLHCW6].*

Contextual feedback with video data

- ▶ *“Watching back real time footage of what you do is... is vital... I though... really like the idea of being able to do it in groups where we can all learn from each other... look at it as a group and sort of people can say “oh yeah but I was doing this because of this” and kind of work out our practices and why we do it like that...” [GINse 1].*



Quality of Feedback

“As long as that is turned into a learning opportunity, I think it can be really beneficial. If those infection control people aren’t already trained in how to give constructive feedback then they will need to be... [laughs] that is super important... And very much the... rather than it being... “oh hah hah we caught you out!” ... You know, like, what was going on there when you know? So, I think, you know, just trying to find out what the ... the context and the bigger picture as to what, what led to that sort of breaching infection control? Because, yeah, there are probably things in the system... potentially a lot of things and how can we make that easier for you? Yeah... I mean... people are much more likely to learn and change behaviours if they're in a safe and constructive and supportive environment. So that's, if that's your aim in this which I'm sure it is... to help people learn and improve. Yeah, you have to make it safe for the staff” [FLHCW7].

Quality of Feedback

- ▶ *“It comes to you first as a first line, as the first line of being told is the person who did it and they get the opportunity to... a right of reply” [GINse 1].*
- ▶ *“And maybe like the education team in the department, like if this person needs to ... re-do their aseptic non touch technique for cannulation or whatever... Yeah... I think that would be reasonable, and then they can come up with a plan of, you know, we need to re-do this or ... whatever it is... yeah.” [FLHCW2].*

Better data, better feedback, better care

Data collected via a VMS would be more valid and reliable



More reflective of practice occurring the majority of time when direct observation was not taking place



Quality feedback based on this data would allow HCWs to recognise, reflect upon and improve their practice



Potential to improve the quality and safety of healthcare.

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Greater certainty of results due to ability to pause or rewind footage

More efficient review due to ability to fast forward

Improved inter-auditor reliability

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Inherent to this was an essential tension between the desire for privacy and freedom from surveillance and that of getting better data in order to improve quality of and safety in healthcare

The general consensus was that if the clear aim of the process was to improve patient care, then the use of video-based surveillance was valuable and further if there was evidence to demonstrate the benefits of the approach it should be embraced

“Well... if the patient is our number one focus... our number one priority... why wouldn't we do this [video auditing]... we need to be able to, as an organisation, guarantee that we're reducing our corporate risk to our patients by ensuring the safest care possible” [MOD5].



So what? ... Implications

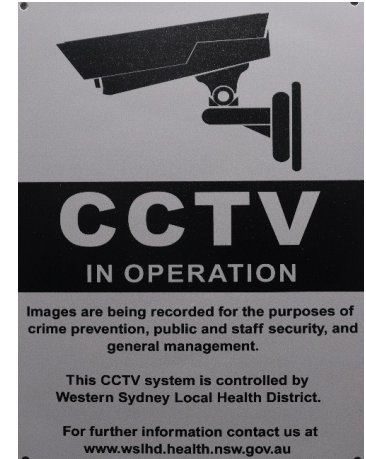
1. For the practice of Hand Hygiene Auditing

- A suitably designed VMS can collect data suitable for auditing according to the WHO 5 Moments criteria
- Such data may be suitable for submission under the auspices of the NHHI
- The use of VMS may represent significant time efficiency
- The need to clarify the purpose and role of direct observation in relation to Hand Hygiene compliance.

So what? ... Implications.....

▶ 2. For Regulation, Legislation, Guidelines, Policy and Procedure

- ▶ Clarification of the status of VMS
 - relative to legislation (privacy act, surveillance devices acts)
 - As a part of the patient record
 - Relating to FOI/legal discovery
 - Consent





So what? ... Implications

▶ **3. For Communication Education and Training**

- Open communication with HCWs
- Public information campaign
- Professional development for auditors

So what? ... Implications

► 4. For Future Research

- Trials in clinical settings
- Exploration of evolving camera technologies
- Potential for the incorporation of AI in the approach
- Potential to use the approach for other healthcare compliance monitoring



Thank you...

- ▶ My Supervisor – Prof Ramon Shaban
- ▶ Associate Supervisors – Dr Trish Ferguson and Dr Cecilia Li
- ▶ Shizar, Cristina, Keren from Westmead
- ▶ Catherine from USyd
- ▶ My colleague and IPAC mentor Helen

ANY QUESTIONS



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