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10 MAY 2010

This is a statement by Dr Lisa Langley ST1 General Practice Antrim Hospital.

Hand Washing Audit

1. I was employed as an F1 doctor in General Medicine at Antrim Hospital from December 2007 to April 2008 and then as an F1 doctor in General Surgery at Antrim Hospital from April 2008 to August 2008. In April 2008, Dr Olivia Dornan held a video conference between all F1 doctors in hospitals within the Northern Trust (Antrim Area Hospital, Whiteabbey Area Hospital, Causeway Area Hospital and Mid-Ulster Hospital). The role of the F1 doctor in promoting improved hand hygiene was discussed. One of my colleagues did some promotional work with the press to make the public aware that junior doctors did realise the importance of hand hygiene as part of the 'Clean Your Hands Campaign'. I along with one of my Mid-Ulster colleagues; Dr Jillian Hunter oversaw and participated in an audit looking at the compliance of hand hygiene among doctors at all levels within Antrim Hospital and the Mid-Ulster Hospital. The audit was performed over a four-week period between June 2008 and July 2008. The results showed overall poor compliance with hand hygiene and the audit presentation is attached.

Impression cleanliness and protocols at Antrim Hospital- compare with your experience at other hospitals.

2. I started work as an F1 doctor in Antrim in December 2007 and I was working in a team-based system. I had only worked in one previous placement in the Mid-Ulster Hospital and it is my perception that infection control standards and cleanliness standards were of a similar level. As far as I can recall patients were isolated with hospital acquired infection and the need for personal protection equipment where required was expected of all staff. However, it is my perception that there was a greater understanding about infection control following the outbreak of C-difficile in January 2008. There was a definite increased awareness of infection control measures and antibiotic prescribing in January 2008 with the opening of a dedicated C-difficile ward on A1. Presentations by Dr Kearney (consultant microbiologist), infection control staff and other senior staff covered antibiotic prescribing and infection control including hand washing. There appeared to be increased

awareness following the C-difficile outbreak among staff that alcohol gel was not sufficient in killing the C-difficile spores. Hand washing protocol was visible in Antrim prior to January 2008 but did appear to become more so following the C-difficile outbreak.

3. In February 2008 medical staff moved from working in a team based system to a ward based system that resulted in medical staff moving much less frequently between multiple wards. The presence of infection control staff at ward level, performing audit along with a greater understanding of the importance of hand hygiene and other infection control measures did seem from a subjective point of view to increase compliance with infection control measures. The wearing of green scrubs was also introduced in February 2008. Promotional measures including posters to make the general public aware of hand hygiene were implemented as part of the 'Clean Your Hands Campaign'.

4. I have returned to work in Antrim Hospital as an ST1 in a general practice rotation. I am currently working in emergency medicine but I have completed six months in general medicine from August 2009 to February 2010. I have observed that measures introduced following the outbreak of C-difficile in January 2008 have been sustained. There are regular ward audits of all staff in relation to hand washing. Patients who develop diarrhoea are promptly assessed and isolated unless the diarrhoea is deemed by a doctor of SHO level or above not to be infective. The doctor must complete a form assessing the patient's infection status. This includes determining the risk of the diarrhoea being infective. If there is any doubt as to the infective status then the patient must be isolated. The doctor also must decide if treatment for C-difficile should be initiated. This also includes withholding proton pump inhibitors and stopping any current antibiotics that are not required. The patient is also required to have an abdominal x-ray. If a patient is found to be infected with C-difficile then a root cause analysis form must be completed by a doctor of SHO level and above as well as by nursing staff. This form includes reviewing the reason for admission, detailing any antibiotics that were prescribed, use of proton pump inhibitors, use of laxatives, previous infection of C-difficile, date of onset of diarrhoea, cleanliness on the ward,

detailing if other patients on the ward were infected with C-difficile and hand hygiene of staff and the patient.

Once a patient is confirmed as having C-difficile then a pro forma is completed on a daily basis to list all daily blood results including full blood picture, urea and electrolytes, c-reactive protein, liver function tests, magnesium, coagulation screen and bone profile. Another daily pro forma also requires documentation of stool number and type, findings of abdominal examination, temperature, abdominal x-ray if done that day and current antibiotic treatment including listing how many days the patient has been receiving that particular course. There is also a protocol in place to assess the severity of the infection and determine what level of treatment is required including which antibiotic to prescribe, duration of antibiotic use, mode of delivery of antibiotic, use of immunoglobulin and referral to surgery where required. This protocol also accounts for re-infection.

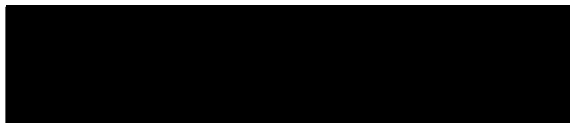
5. I actually found when I moved to the Royal Victoria Hospital (RVH) in August 2008 as an F2 doctor, there seemed to be less of an infection control presence at ward level. There did not seem to be the same number of ward level hand washing audits. Patients did not seem to be isolated as quickly in the RVH if they developed diarrhoea as they were in Antrim. There did not seem to be a visible protocol assessing the severity of C-difficile and appropriate management as in Antrim Hospital. I was also not aware in the Belfast Trust of medical staff having to complete root cause analysis documentation if patients did develop C-difficile. I was also not aware of a daily pro forma as in Antrim Hospital to assess the patient's response to treatment. I was also not required to wear scrubs in the RVH. The presence of hand washing protocol appeared to be of a similar level in the RVH. The cleanliness levels of the wards and corridors appeared at Antrim Hospital to be similar to the RVH and subjectively the numbers of domestic cleaning staff appeared to be similar. The RVH also had more side rooms on each ward and there seemed to be better staffing levels among both nurses and doctors.

Clinical 'freedom' versus Antibiotic Policy

6. I believe there was also an increased awareness of antibiotic prescribing among the medical staff at Antrim Hospital following the C-difficile outbreak in January 2008 including giving consideration as to whether prescribing an antibiotic was necessary and the need to adhere to the hospital antibiotic protocol wherever possible. A new antibiotic protocol was introduced following the C-difficile out-break in January 2008. This protocol was more visible than the previous antibiotic protocol as it was posted on the wards in a succinct laminated format. I found this protocol and the ease of access to it very helpful when prescribing antibiotics. The introduction of exemption forms requiring a consultant signature permitting the prescription of certain antibiotics known to particularly increase the risk of C-difficile was aimed at reducing the prescription of these drugs. I was an F1 doctor at this stage and did not feel limited by the antibiotic policy because I was introduced to it so early in my career. I actually felt more reassured by it because it guided me in my prescription of antibiotics for different infections. My subsequent job as an F2 doctor in the Belfast Trust also involved the use of an antibiotic protocol, which we were advised to adhere to, wherever possible. However there were no antibiotic exemption forms and if I wished to prescribe antibiotics not on the protocol then I could. It is possible more senior doctors might find such protocols impinge on their clinical 'freedom' but this is not a view I share myself.

I confirm to the best of my knowledge that the contents of this statement are true.

Signed:



Dated:

7/5/10

Handwashing

- Are we as good as we think?

Jillian Hunter
Lisa Langley

In The News

Doctors have 'poor hygiene'
The Times 28 August 2007

Doctor's Failure to Wash Hands Holding Back Superbug Battle
Scotsman July 2008

UK C. diff deaths 'rise sharply'
BBC 26 April 2008

Dramatic rise in C. diff deaths
BBC News 28 Feb 2008

Concerns over alarming rise in C-Diff deaths
Newsletter 26 July 2008

Objectives

- Why audit this subject?
- About C. Diff infection
- UK death rates
- Role of the Physician
- EPIC Study
- Audit results
- Discussion
- Conclusion

Why Audit?

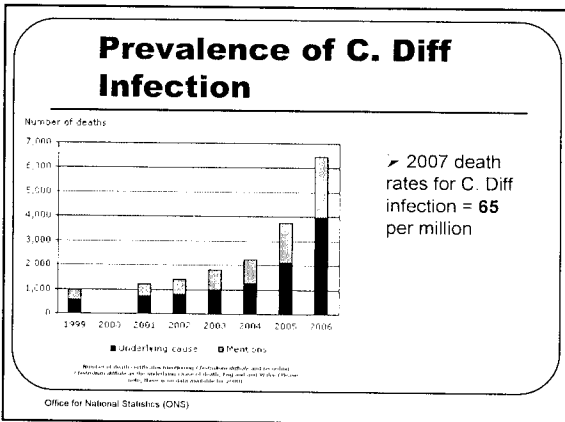
- Clinical governance
- Rising numbers of HCAI
- Recent negative media attention affecting Northern Trust
- Recent RQIA Inspection
- Increased awareness among the public of MRSA and C. Diff
- Are we as good as we think about handwashing?

About C. Diff Infection

- First described in the 1930s but not identified as source of diarrhoea and colitis until the 1970s
- Anaerobic bacteria
- Produces spores that survive for a long time
- Normal bowel flora in 3-5% of population (common in babies and infants)
- Mode of spread – direct contamination

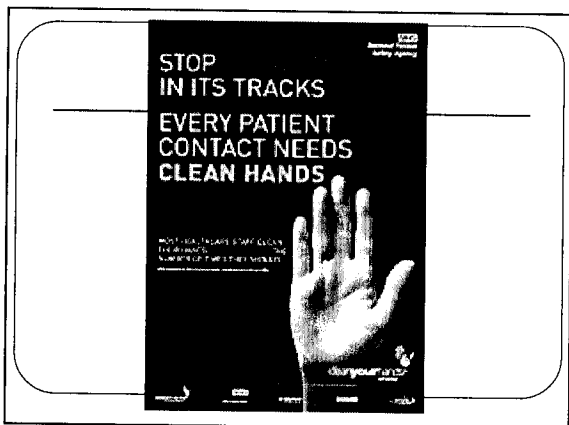
Clinical Spectrum of Infection

- Diarrhoea
- Colitis with ulceration and bleeding
- Perforation leading to peritonitis
- Death



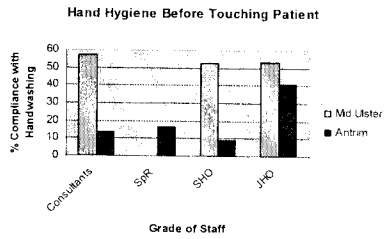
- ## The Cost of C. Diff Infection
- 13% mortality
 - Lengthens stay by factor of 2.5
 - £3000 per patient
 - Annual cost £1 billion
 - HCAI affects 1 in 11 inpatients

What the public sees.....

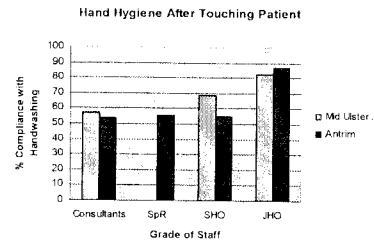


- ## Role of the Physician
- Provide direct patient care using practices which minimise infection
 - Follow appropriate practice of hygiene
 - Support Infection Control Team and comply with the practices approved by the infection control team
 - Take steps to prevent infections being transmitted to other patients

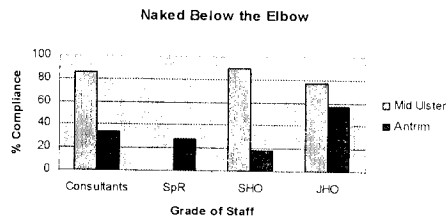
Results



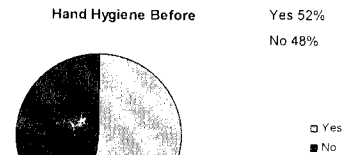
Results



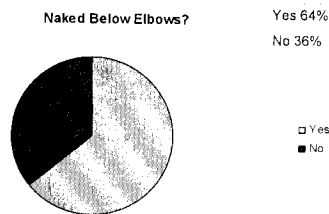
Results



Results Of F1s



Results Of F1s



Discussion

- Overall compliance poor!!
- Good Points
 - Compliance with handwashing after touching patient
 - 100% compliance after procedure with F1s
 - Mid Ulster more compliant
 - ? In relation to average
- Bad Points
 - Compliance before touching patient very poor
 - Compliance poor among more senior staff with handwashing
 - Poor compliance with naked below the elbows
 - Handwashing before procedures poor among JHOs
- Government target is 90% compliance with handwashing by 2009

Conclusions

- Do we need a different approach among medical staff to change attitudes?
- Specific targeted infection control
- Evidence based practice
- Regular inter-hospital audit among doctors to compare compliance
- Inter-specialty comparison
- Random spot checks and unannounced data collection
- Promote a culture of openness and accountability
- Ongoing education

The treatment effect is so great that if 'hand-hygiene' were a new drug it would be used by all.

So why is it not 'used' by doctors?

J R Soc Med. 2001 June; 94(6): 278-281

References

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 - Simple Guide to Clostridium Difficile http://www.dh.gov.uk/en/PublicHealth/HealthProtection/HealthcareAcquiredInfection/HealthcareAcquiredGeneralInformation/DH_4115800
 - Clean Safe Care Campaign www.clean-safe-care.nhs.uk
- National Patient Safety Agency
 - Clean Your Hands Campaign <http://www.npsa.nhs.uk/cleanyourhands>
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Any Questions?

