

Hand Hygiene Why is this Still an Issue?

Jim Gauthier, MLT, CIC
President CHICA-Canada
Kingston, ON



Why is This Still an Issue?

I don't know!



Questions?

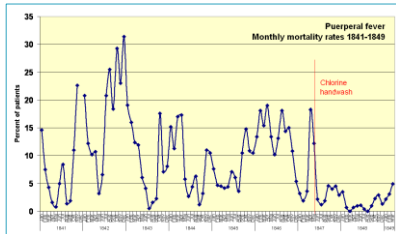


Objectives

- › Review what we have been doing
- › Discuss why 'perfect' hand hygiene numbers are not going to happen

Have We Come a Long Way?

- › Ignaz Semmelweis
 - Seminal study of hand hygiene with outcomes – 1847



http://en.wikipedia.org/wiki/File:Monthly_mortality_rates_1841-1849.png

Semmelweis

- › Ridiculed
- › Passed by for promotion
- › Died in an insane asylum
 - In later years appeared to talk about nothing except puerperal fever



A Bit Closer

- ▶ Florence Nightingale 1820 – 1910
 - Fought for improved sanitation, not only during Crimean War but in India
 - Statistician
 - Use of Pie Charts

Trends or Fads?

- ▶ Numerous thoughts on getting hand hygiene compliance higher
- ▶ Hundreds of articles on hand hygiene, compliance and sustainability

Multimodal Programs

- ▶ Seem to be most successful
- ▶ WHO 2009
 - System Change
 - Training / Education
 - Evaluation and Feedback
 - Reminders in the Workplace
 - Institutional Safety Climate



System Change

- ▶ Infrastructure
 - Clean water, soap and towels
 - Point of care ABHR
- ▶ Ciofi degli Atti 2011
 - Availability of ABHR most crucial role in preventing HAI in staff and parent survey



Training/Education

- ▶ Regular and based on moments
- ▶ McLaughlin 2011
 - Contact with surfaces less risky than contact with patient's skin
 - Need to improve education on risk of fomites, and education on cleaning of surfaces
 - I will add: "We use sporicidal cleaners *because...*"



Training/Education

- ▶ Graf 2011
- ▶ Only 21% of German medical students knew 5 moments
- ▶ Medical students would have higher compliance than nurses
- ▶ Expected decline in compliance as the physicians reach the upper steps in medical hierarchy



Evaluation and Feedback

- ▶ Monitoring with rates back to staff
- ▶ Who monitors?
- ▶ Electronic Monitoring
 - Cheng 2011
 - Can differentiate between contacts depending on sensors
 - Review of older electronic measuring systems
- ▶ Influence of Peer Pressure?
- ▶ Manager / Supervisor Responsibility?



Reminders in the Workplace

- ▶ Audible reminders on entering ward increased compliance (Fakhry 2012)



Institutional Safety Climate






- ▶ active participation at both the institutional and individual levels;
- ▶ awareness of individual and institutional capacity to change and improve (self-efficacy);
- ▶ partnership with patients and patient organizations (depending on cultural issues and the resources available)



Hand Hygiene in the Community

- ▶ Storr 2012
- ▶ Utilized these 5 attributes into a model for the community
- ▶ Safety Climate includes a pamphlet for the patient receiving home care (Australia Five Moments Leaflet)



<p>When should your health care provider/carer clean their hands?</p> <p>There are 5 Moments when hand hygiene should be performed by your healthcare provider/carer:</p>	<p>Moment 2. Before attending to your care</p>  <ul style="list-style-type: none"> ◦ Immediately before touching your wounds or giving intravenous medications ◦ Immediately before touching any device you may have like a catheter or IV line 	<p>Moment 4. When your care is finished</p>  <ul style="list-style-type: none"> ◦ When they leave your home, room or building you are in
<p>Moment 1. When arriving to attend your care</p> <p>At home</p> <ul style="list-style-type: none"> ◦ After your health care worker has entered your house <p>In a clinic</p> <ul style="list-style-type: none"> ◦ On entering the treatment room <p>Anywhere</p> <ul style="list-style-type: none"> ◦ Before starting any care ◦ Before giving oral medications 	<p>Moment 3. After attending your care</p>  <ul style="list-style-type: none"> ◦ After touching your wounds or giving your medications ◦ Immediately after touching any device you may have like a catheter or IV line ◦ After they have disposed of used/dirty equipment or rubbish ◦ After collecting any specimens 	<p>Moment 5. After touching the surroundings but not the patient</p>  <ul style="list-style-type: none"> ◦ After touching any furniture or equipment but not touching you ◦ After touching any pets

Let's Look at Other Thoughts



Patient Empowerment

- ▶ McGuckin 2009 (review)
- ▶ **Empowerment:** process in which patients understand their opportunity to contribute and are given the knowledge and skills by their health care provider...to perform a task in an environment that recognizes community and cultural differences and encourages patient participation
- ▶ Can and has worked!
- ▶ Ciofi degli Atti 2011
 - Not so much!

Social Psychological Models

- "Most immediate and important predictor of a person's behavior is his/her intention to perform it." Sheeran 2002
 - Theory of reasoned action
 - Theory of planned behavior
 - Attitude-behavior theory
 - Protection motivation theory
 - Intention behaviour theory

Self Protection

- ▶ Hand hygiene higher if staff feel there is a risk to themselves
- ▶ Scheithauer 2010
 - Hand hygiene higher if staff thought child had viral gastroenteritis
- ▶ Lee 2011
 - Hand hygiene was higher for after patient contact

Inherent vs. Elective

- ▶ Dawson (PhD thesis)
- ▶ Inherent: when hands appear or feel dirty (moment 3)
- ▶ Elective: Not performed automatically but because of learnt practices of care
 - Know that hands need to be cleaned
- ▶ Inherent should be higher than Elective

What Seems to Work?



Positive Deviance

- ▶ Allow staff to create hand hygiene program
 - UHN (Toronto): each floor has different HH program that the unit has created.
- ▶ “Need better than 80% compliance – make it so!”



Culture Change

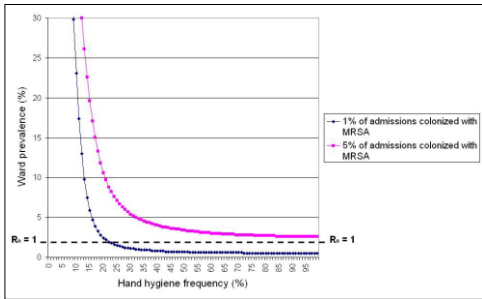
- ▶ Son 2011
 - Multidisciplinary teams of Quality Assurance, ICP, Nurses, Physicians, Patient Care
 - 12 week implementation program
 - Rates from 65–97%



Son 2011

What Will 100% Give Us?

- ▶ Beggs 2008
- ▶ Study using a mathematical model based on hand hygiene alone will prevent spread of infection
- ▶ With an efficacy of 58%, risk of an outbreak is removed with 35% compliance.
- ▶ NOTE: if >5% of admitted patients are colonized, you will have transmission



The impact of variations in the proportion of admissions already colonized with MRSA on the prevalence of infection



Summary

- ▶ Healthcare workers do not come on shift planning on NOT performing hand hygiene.
- ▶ Multimodal programs are required as is more research (Erasmus 2010)
- ▶ I still don't know why this is an issue!



I'm So Much Cleaner



Tune of I'm a Believer



I'm So Much Cleaner

My poor hands were sore and red from
washing them.
Seemed the soap we used just ate
them up.
Alcohol was out there,
I just got some in.
I needed something new to save my
skin.



I'm So Much Cleaner

And now I squirt my hands,
And I'm so much cleaner.
Not a bug, is left on my skin.
Alcohol:
It made my skin soft, it did not rip off
everyday.



I'm So Much Cleaner

I assumed that everyone was washing
them,
Nurses, doctors and the other staff.
Then we had the outbreak,
In everyone it seems.
MRSA haunted all my dreams.



I'm So Much Cleaner

And now I squirt my hands,
And I'm so much cleaner.
Not a bug, is left on my skin.
Alcohol:
It works much quicker, I don't need to
dicker with a sink.



I'm So Much Cleaner

Alcohol was out there,
I just got some in.
I needed something new to save my
skin.



I'm So Much Cleaner

And now I squirt my hands,
 And I'm so much cleaner.
 Not a bug, is left on my skin.
 Alcohol:
 It works much quicker, I don't need to
 dicker with a sink.



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