

**Historical
Perspective
on
Hand Hygiene
in
Health Care**

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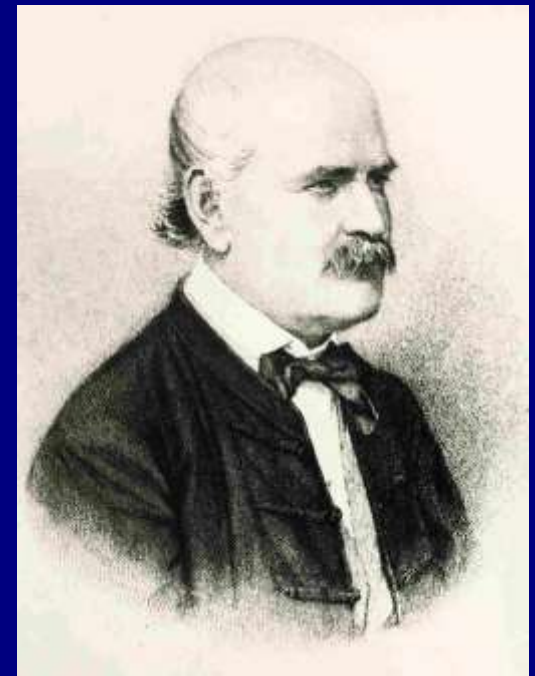
IGNAZ SEMMELWEIS

- “Many men have been endowed with clear intellects and hearts full of love for their fellow men, with the enthusiasm of humanity, and they have been enabled to achieve some signal service for the human race; but in the whole history of medicine there is only one Ignaz Semmelweis in the magnitude of his services to Mankind, and in the depths of his sufferings from contemporary jealous stupidity and ingratitude.”
- Royal Society of Medicine

HISTORY

- The link between handwashing and the spread of disease was established only two centuries ago.
- This is earlier to the discoveries of Pasteur and Lister that occurred decades later.
- In the mid-1800s, studies by Ignaz Semmelweis in Vienna, Austria, established that hospital-acquired diseases were transmitted via the hands of HCWs.

- House officer in one of the two clinics at the University of Vienna, Austria (General Hospital).
- Observed that maternal mortality rates, due to puerperal fever, were substantially higher in one clinic compared with the other (16% versus 7%)
- One unit was managed by house officers involved with autopsies other was managed by midwives and nurses.



Ignaz's Hypothesis

Ignaz thought why so?

His Observations and Experiments

Comparison between two units:

- In the midwives' clinic, women gave birth on their sides. In the doctors' clinic, women gave birth on their backs. So he had women in the doctors' clinic give birth on their sides. The result, was "no effect."

Ignaz's Hypothesis

- Semmelweis noticed that whenever someone in the ward of childbed fever died, a priest would walk with bell ringing. He theorized that the priest and the bell ringing terrified the women after birth that they developed a fever, got sick and died. So Semmelweis had the priest change his route and ditch the bell. Result was again “no effect.”

Ignaz's Hypothesis

- **Hypothesis:** “Cadaverous particles” were transmitted via the hands of doctors from the autopsy room to the delivery theatre and caused the puerperal fever.
- **Recommendations:** Hands be scrubbed in a chlorinated water before every patient contact and particularly after leaving the autopsy room. (May 1847, Even before Pasteur)
- **Result:** reduction in mortality rate which fell to 3% and remained low thereafter.

FAILURE

- Semmelweis failed to bring a sustained change in his colleagues' behaviour. Semmelweis experienced great difficulties in convincing his colleagues and administrators of the benefits of this procedure. His major error was that he imposed a system change without consulting his collaborators.

LESSONS

- Many lessons have been learnt from the Semmelweis intervention; the “recognize-explain-act” approach has driven many investigators and practitioners since then. Semmelweis is considered not only the father of hand hygiene, but his intervention is also a model of epidemiologically driven strategies to prevent infection.

FAILURE

- Doctors were upset because Semmelweis' hypothesis made it look like they were the ones giving childbed fever to the women.
- And Semmelweis was not very tactful. He publicly berated people who disagreed with him and made some influential enemies.
- Eventually the doctors gave up the chlorine hand-washing, and Semmelweis lost his job.

CHALLENGE

- Even today, convincing health care providers to take hand-washing seriously is a challenge. Hundreds of thousands of hospital patients get infections each year, infections that can be deadly and hard to treat. The Centers for Disease Control and Prevention says hand hygiene is one of the most important ways to prevent these infections.

SAD END

- Over the years, Semmelweis got angrier and eventually even strange. There's been speculation he developed a mental condition and in 1865, when he was only 47 years old, Ignaz Semmelweis was committed to a mental asylum.
- The sad end to the story is that Semmelweis was probably beaten in the asylum and eventually died of sepsis, a potentially fatal complication of an infection in the bloodstream the same disease Semmelweis fought so hard to prevent in those women who died from childbed fever.

IIHMR

- The IIHMR University, Jaipur
- Promoters felt that medical policies are not evidence based, hence, IIHMR
- One of its own kind involved in research in health care
- Established in 1984 as an Institute committed to research
- Research influenced policy making
- More than 500 research projects in India/abroad

IIHMR

- Who will implement policies effectively?
- IIHMR started training the personnel related to health care in managerial field. Short term courses were not considered enough to develop adequate managerial skills.
- In 1986 full two years course Post Graduate Diploma in Hospital and Health Management was introduced.

IIHMR

- The supply of qualified managers created a demand in the hospital and health industry
- We take pride to say that we have around 2000 alumni who are proud of their alma mater and getting praise from the employers.
- Subsequently courses in Pharmaceutical and Rural Management were introduced.

The IHMR University

The IHMR University presently runs following MBA programmes:

- Hospital and Health Management
- Pharmaceutical Management
- Rural Management
- Human Resource Management in Health
- Health Economics, Finance and Insurance
- Procurement and Supply Chain Management

The IHMR University

Other Programmes Offered:

- PhD in fields related to hospital and health
- MPH in cooperation with Johns Hopkins University, Baltimore USA
- Unique programme where Degree is awarded by Johns Hopkins University and The IHMR University Jointly.

The IHMR University

Training:

- So far more than 10,000 health professionals have been trained all over India and abroad.
- Conducts about 50 training programmes per year.
- Research:
 - About 1000 research projects completed .
 - Presently NFHS survey is being done in five states besides various research projects with National and International agencies.

The IHMR University

- Way Ahead

Short Courses to be introduced soon

- Public Health Nutrition
- Health Insurance
- Urban Health
- NGO and CSR Management
- Project Management

Thank You