Governmental regulations in infection control: Pitfalls

Dr. Michael A. Borg
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Regulations can be counter-productive
Clinical waste
Table 2 Infectious Waste (HMW-IC)

Waste that their collection and disposal necessitate special requirements regarding the risk of infection

Body tissues and human organs

Waste that derives from sources where there is danger of infection (e.g. rooms for patients with infectious diseases etc). Infectious waste is suspected to contain pathogens (bacteria, viruses, parasites, or fungi) in sufficient concentration or quantity to cause disease in susceptible hosts. In general it is waste that has been in contact with:

α) blood in such a quantity that it is visible

β) urine and excreta from patients that suffer from diseases that can me transmitted through excreta

γ) Sperm, Cerebrospinal fluid, synovial fluid, vagina fluid etc
SHEA Position Paper

Medical Waste

William A. Rutala, PhD, MPH; C. Glen Mayhall, MD;
The Society for Hospital Epidemiology of America
“.. no scientific evidence that medical waste (in developed countries) has ever been the source of infection for any person outside a healthcare setting.”

“Most wastes from healthcare can be safely landfilled provided procedures to prevent worker contact are employed.”

“Based on microbiological & epidemiological data only two types of waste require special handling & treatment: SHARPS & MICROBIOLOGICAL WASTE”

(SHEA 1992)
• “A lack of understanding of modes of transmission …, fear of a fatal disease such as AIDS, a distrust of healthcare facilities accentuated by intense and often misleading media coverage has led to intense pressure on … politicians to regulate medical waste”

SHEA Position Paper

WASTE COSTS...

90p to dispose of each clinical (yellow) waste bag

15p to dispose of each domestic (black) waste bag

PLEASE THINK BEFORE YOU THROW AWAY

PUT YOUR RUBBISH IN THE CORRECT BIN!
Unintended consequences

GOOD INTENTIONS
bad results

Buenas intenciones
Resultados erróneos
In the US, the introduction of penalties for hospital central line infections has had several unintended consequences, say researchers. Dixon-Woods said that these include allegations that hospitals caring for high risk patients—such as those with repeat abdominal surgery—are penalised, greater inappropriate use of peripheral lines to avoid infections attributable to central lines, and less active attempts to detect infections. She thought that using hospitals’ reported rates to impose financial sanctions was “probably not appropriate.”

Penalties in the US for central line infections have led to the inappropriate use of peripheral lines.

As well as being used to deliver treatments, central lines provide a route through which pathogens can enter the bloodstream and cause potentially serious infections. But many infections can be avoided if safety protocols are followed when the tubes are being inserted and in patient management.

Researchers examined what happened in 17 intensive care units in English trusts when rates of central line infections were collated and reported as part of a patient safety programme. The study, told the BMJ, “To be able to compare something accurately, everyone has to be doing the same thing, and we found this wasn’t happening.” The team found variation within and between the units in data collection systems and procedures for collecting and compiling data on possible infections.

Julian Bion, fellow author and professor of intensive care medicine at the University of Birmingham, said that if data produced by hospitals were going to be used to guide quality improvement, data collection systems must be carefully designed and operated and “fully integrated with clinical priorities.”

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Dr. Jan Patterson:

- “cautioned that federal programs targeting certain types of infections could mean **less attention paid by hospitals to other, non-targeted infections**…”
- “cited a recent study in the American Journal of Infection Control, which found that roughly third of infection preventionists said their organizations were placing less focus on non-targeted HAIs.”
- “warned of an **unwillingness of hospitals to admit sicker patients who may be at a higher risk of contracting such infections**”
We all have driving regulations...
• Always indicate when changing lanes on a motorway. People will consider you a poor driver if you don’t indicate and you can actually be fined for not doing so.

• Stick to the speed limit. Fines are extremely high should you break the speed limit and be caught, so keep this in mind.

http://www.algarvecarhireonline.co.uk/aboutdrivingabroad/tips-for-driving-scandinavia.html
• The speed you travel is determined by you, not the traffic conditions or official limits.
  – If you think you can do 200kph down the highway in the pouring rain, dodging around the slower traffic like a downhill skier, go for it.
• Fill every possible space on the road with a vehicle with no regard to traffic lanes,
• Use the horn for any reason whatsoever.
• Ignore any rules that do not seem convenient for your own personal comfort.
Regulations

- Are only as effective as the degree to which people want to follow them and are enforced.
- Significant variation between countries:
  - Regulations that work in some countries can fail miserably in others.
  - Closely linked to cultural backgrounds:
    - Uncertainty avoidance
    - Power distance
Determinants of behaviour

INTENTION

BEHAVIOUR
Theory of planned behaviour

- **Attitude**
- **Subjective Norm**
- **Perceived control**

**INTENTION**

**BEHAVIOUR**
Theory of planned behaviour

- **CULTURAL INFLUENCES**
  - Strength of belief
  - Evaluation of outcome
  - Perceived expectations
  - Motivation to comply
  - Facilitation/impedance
  - Perceived factor influence

- **Attitude**
- **Subjective Norm**
- **Perceived control**

- **Intention**
- **Behaviour**
Theory of planned behaviour

CULTURAL INFLUENCES
- Belief in IPC practice
- Conviction that IPC is effective
- Rules and regulations
- Accountability & consequence
- Facilities to do IPC practice
- Overcrowding & lack of staff

ATTITUDE

SUBJECTIVE NORM

PERCEIVED CONTROL

INTENTION

BEHAVIOUR
The key is intention

- If staff do not intend to follow correct infection control practices, their attitudes are unlikely to be significantly changed by any amount of regulations.
- Risk of rules being introduced for their own sake simply to provide a sense of security (certainty)
  - Although in actual fact they are ineffective / unenforced.
- Whilst regulations may serve a purpose, the key to improved HAI outcomes is our ability to convince our colleagues that infection control matters.
Thank you