

Unsafe Practices in EMR

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Unsafe Injection



Definition

Unsafe injection is one that harms the recipient, exposes the provider to any avoidable risk, and results in waste that is dangerous to other people.

How?

- Reuse of unsterilized injection equipment previously used on someone infected with blood borne pathogen.
- Reuse of syringe for the same patient (s/d)
- Changing needles while reusing syringes without sterilization.
- Use of water, bleach, or others to soak, rinse, or flush (fill and expel or run fluid through) needles and syringes to eliminate pathogens.

Unsafe injection is a world wide problem

- Acute Hepatitis C Virus Infections was Attributed to Unsafe Injection Practices at an Endoscopy Clinic—Nevada, 2007

8 hepatitis cases linked to clinic

Brooklyn Bug

Clinic linked to 8 cases of hepatitis C; 2,200 at risk

DISEASE A

Hepatitis C is a blood-borne virus. The Centers for Disease Control and Prevention estimate that about 4 million people in the United States have the virus.

Hepatitis C outbreak among clinic patients

Patients of Brooklyn Clinic Are Sought

After Outbreak of Hepatitis C

A patient says a clinic is so clean that even the magazines are new.

Some other way in which contamination introduced blood or other fluids into the scopes or other instruments. There have been reports in the past few years that some endoscopy units were not properly sterilized.

Health Department is trying to reach 2,200 people who were at the clinic during the outbreak. The department is trying to reach 2,200 people who were at the clinic during the outbreak. The department is trying to reach 2,200 people who were at the clinic during the outbreak.

MEDICAL MYSTERY

Hepatitis C outbreak

Strikes 8 endoscopy patients of B'klyn clinic

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- In transitional and developing countries where unnecessary injections are common, the average number of health care injections per person was estimated to be 3.7 per year
 - Many injections, as well as being unnecessary, are also unsafe.
 - Injections are provided not only by doctors and nurses in the formal sector, but also by practitioners from the informal (Private)sector

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- One of the biggest global concerns is the spread of HIV, HBV, and HCV due to the reuse of injection devices.
 - This problem is worldwide, affecting developed countries as well as developing countries, and many studies have demonstrated the extent and the severity of the problem.

Risk

- A mathematical model developed by the WHO suggests that in developing and transitional countries in 2000, the reuse of injection devices accounted for an estimated;
 - 22 million new cases of HBV infection (about one third of the total),
 - 2 million cases of HCV infection (about 40% of the total), and.....
 - about a quarter-million cases of HIV infection (about 5% of the total) for the whole world

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- While there is significant variation between countries, WHO estimates that in sub-Saharan Africa, approximately 18% of injections are given with reused syringes or needles that have not been sterilized.
 - However, unsafe medical injections are believed to occur most frequently in South Asia, the Eastern Mediterranean, and the Western Pacific regions;
 - Together, these account for 88% of all injections administered with reused, unsterilized equipment.

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- Several reports suggest that injections are overused in Pakistan.
 - Reuse of single-use injection equipment is also common.
 - However, no population-based estimates of injection frequency were available.
 - Furthermore, no information was available with respect to the distribution of injections according to prescribers (e.g. GPs) and injection providers (e.g. nurses).

Reasons contributing to the reuse of injection equipment involve combinations of socio-cultural, economic and structural factors which include:--

Inaccurate patient beliefs

- *Some patients believe that injected medications are more effective than those administered orally.*
- *Family members believe that needle sharing among family members carries the same risk as casual contacts.*
- *Patients also view needle sharing with neighbours as being good neighbourly practice.*
- *Patients believe they will not become infected simply because it has not yet happened. (It may take years for bloodborne pathogens such as HIV, HBV, or HCV to significantly affect patient populations)*

Practitioners' and HCWs beliefs and actions

- *Practitioners and HCWs are unable to help patients understand that oral medications are effective.*
- *Practitioners and HCWs fear that patients will not complete the prescribed oral medication regimen.*
- *There is insufficient training for practitioners and HCWs in infection control practices due to the lack of resources.*
- *HCWs often fail to adhere to infection control practices and interventions.*

Limited resources

- *There are equipment shortages.*
- *There are insufficient funds for adequate supplies.*
- *There are inadequate disposal options....*

WHO recommendation

- Based on “well-designed experimental or epidemiological studies,” is to “**use a sterile syringe and needle for each injection**”.

Re use of single use medical devices

Current Situation

- Rising healthcare costs have prompted some healthcare facilities to consider reprocessing devices labeled as “single use” devices (SUDs).
- In most of countries in our region we do not have legislations or in-house regulations that could control such actions;

Examples (No available data):

- Cardiac catheters
- Single used biopsy forceps
- Injection needles of sclerotherapy
- Reuse of anesthesia needles in dental clinics

Where ?

- In house or by third party commercial companies with no approved protocols or standards as that of the original manufacturer.

Risk?

There are three concerns related to safety with the reuse of disposable medical devices:

- the efficiency of cleaning and sterilization ?
- the effects of cleaning, disinfection and sterilization on the chemical, physical and mechanical integrity of the articles ?
- the safety of healthcare professionals who recycle these articles ?

Legal Issues?

There are four major aspects of the legal/liability issue:

- Manufacturer's liability;
- Institutional liability;
- Physician liability; and,
- Informed consent (patient).

Aspiration

To have legislations, written guidelines, policies and procedures and appropriate documentations for reprocessing of medical devices wherever they occur.

Challenges

- **Culture.....!**
- Cleaning efficiency
- Sterilization efficiency
- Depyrogenation efficiency
- Safety considerations



Thank you