FROM ADMISSION TO DISCHARGE: APPLYING THE PRINCIPLES OF SAFE INJECTION PRACTICES IN AMBULATORY SETTINGS

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ACT ONE: A Tale Of Unsafe Injection Practices

THE WORST MOVIE YOU NEVER WANTED TO SEE

THE HARMFUL EFFECTS OF UNSKILLED ACTORS:

Outbreaks of Infection Caused by Breaches in Safe Injection Practices

Mail Online

Parents' horror as they are told to test their infants for HIV after flu vaccine mix-up
April 13, 2011

silive.com

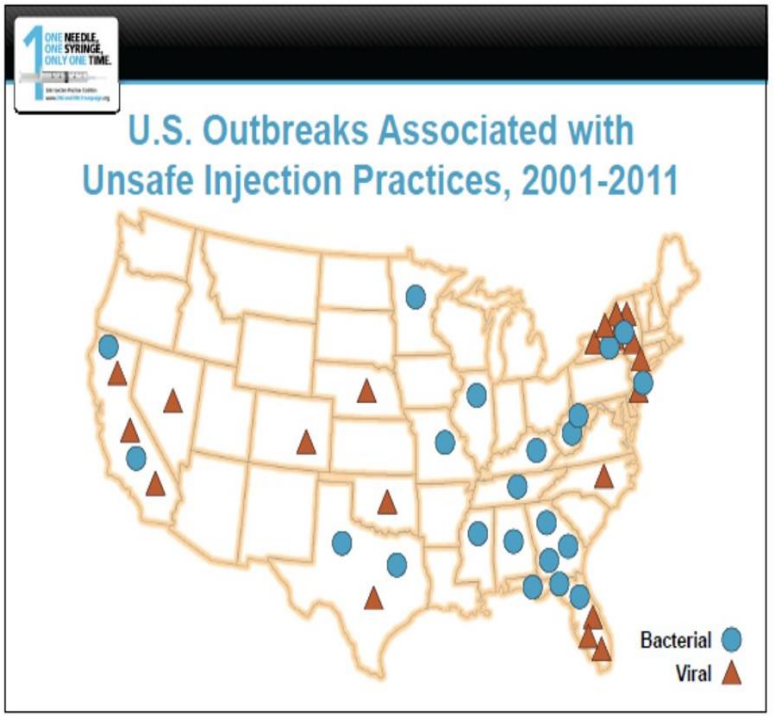
City alerts 450 patients of Hylan Boulevard clinic to hepatitis C Concern
June 17, 2011

Outpatient Surgery

Nurse accused of stealing pain meds gets probation
September 20, 2011

nj.com

NJ doctor loses license after hepatitis B outbreak
September 15, 2011



CDC. Injection safety: every provider's responsibility.

FEBRUARY 2020 MAYO CLINIC REPORT:

- SINCE 2001 NEARLY 200,000 PATIENTS IN THE UNITED STATES HAVE BEEN NOTIFIED ABOUT POTENTIAL EXPOSURE TO BLOOD-CONTAMINATED INJECTIONS OR INJECTION EQUIPMENT.
- DESPITE CLEAR CDC GUIDELINES, NATIONALLY ORGANIZED CAMPAIGNS, EDUCATIONAL PROGRAMS AND REGULATORY OVERSIGHT, NON-COMPLIANCE CONTINUES
- 2001 – 2011: 35 SEPARATE EVENTS RESULTED IN NOTIFICATION OF MORE THAN 130,000 PATIENTS
- 2011 – 2018: 38 SEPARATE EVENTS RESULTED IN NOTIFICATION OF NEARLY 67,000 PATIENTS

BLOOD-BORNE PATHOGEN OUTBREAKS DUE TO UNSAFE INJECTION PRACTICES (2007-2009)

NEW YORK CITY – ENDOSCOPY CLINIC – HEPATITIS C VIRUS TRANSMISSION → 4,500 PATIENTS NOTIFIED

LONG ISLAND, NY – PAIN MANAGEMENT CLINIC – HEPATITIS C VIRUS TRANSMISSION → 10,400 PATIENTS NOTIFIED

MICHIGAN – DERMATOLOGIST – FRAUD INVESTIGATION → 13,000 PATIENTS NOTIFIED
LAS VEGAS, NV – ENDOSCOPY CLINIC – HEPATITIS C VIRUS TRANSMISSION → >50,000 PATIENTS NOTIFIED

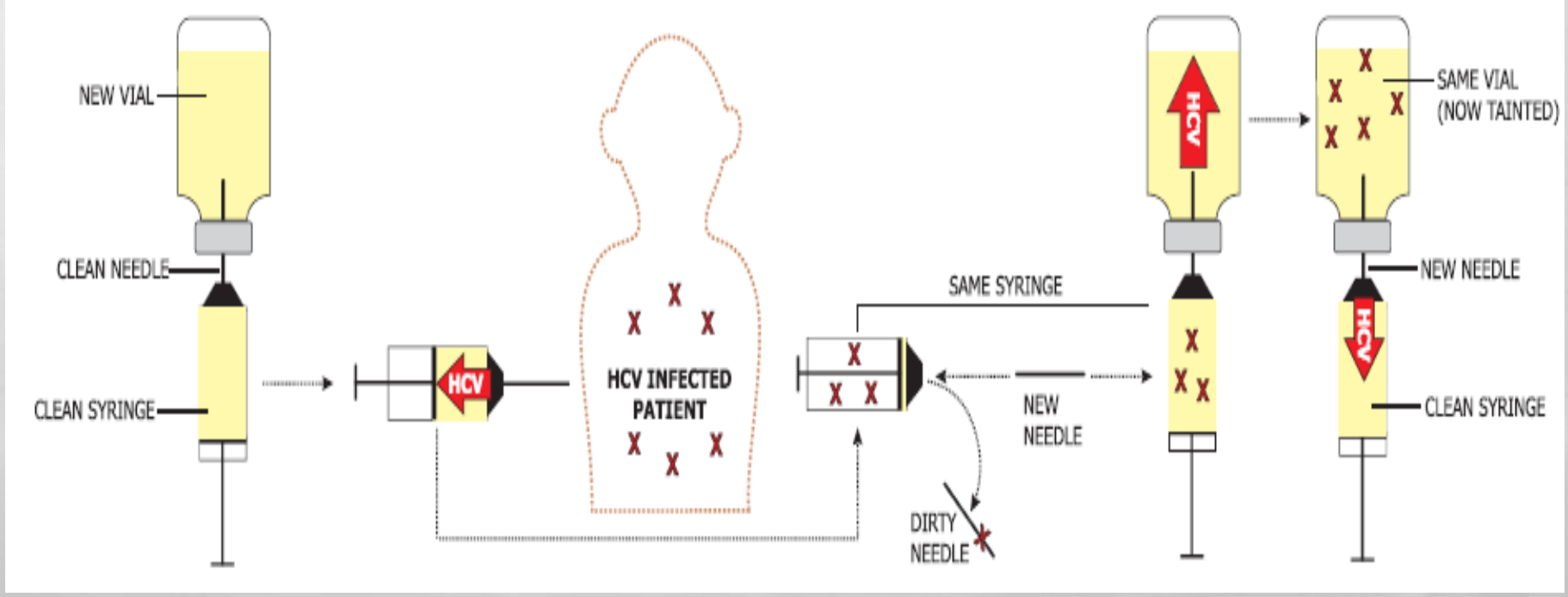
NORTH CAROLINA – CARDIOLOGY CLINIC – HEPATITIS C VIRUS TRANSMISSION → 1,200 PATIENTS NOTIFIED

NEW JERSEY – ONCOLOGY CLINIC – HEPATITIS B VIRUS TRANSMISSION → 6,000 PATIENTS NOTIFIED

COMMON ELEMENTS: RE-USE OF SINGLE USE SYRINGES, SINGLE-DOSE VIALS & SINGLE-PATIENT SALINE BAGS FOR MULTIPLE PATIENTS

INDIRECT SYRINGE REUSE
NEVADA ENDOSCOPY CENTER
HCV OUTBREAK INVESTIGATION, 2008

SYRINGES WERE RE-USED TO WITHDRAW MULTIPLE DOSES FROM SINGLE DOSE VIAL FOR ONE PATIENT



UNSAFE BLOOD GLUCOSE MONITORING

23 OF 50 HEALTHCARE-ASSOCIATED HEPATITIS OUTBREAKS (1999-2009) INVOLVED ASSISTED BLOOD GLUCOSE MONITORING IN NON-HOSPITAL SETTINGS

COMMON RISK FACTORS:

- RE-USE OF FINGERSTICK DEVICES ON MULTIPLE PATIENTS
- CO-MINGLING OF CONTAMINATED DEVICES
- FAILURE TO CLEAN AND DISINFECT REUSABLE DEVICES

BACTERIAL OUTBREAKS DUE TO UNSAFE INJECTION PRACTICES, 2008-2009

WV – PAIN CLINIC – 8 CASES – INVASIVE *S. AUREUS*

- EPIDURAL INJECTIONS; 7 PATIENTS HOSPITALIZED (RANGE 5-23 DAYS)

GA – PRIMARY CARE CLINIC – 5 CASES – *S. AUREUS*

- JOINT INJECTIONS;ALL PATIENTS HOSPITALIZED ≥1 WEEK

FL – PAIN CLINIC – 7 CASES – *MYCOBACTERIUM ABSCESSUS*

- EPIDURAL INJECTIONS; ALL PATIENTS REQUIRED LAMENECTOMY

FL – PAIN CLINIC – 24 CASES – INVASIVE *S. AUREUS*

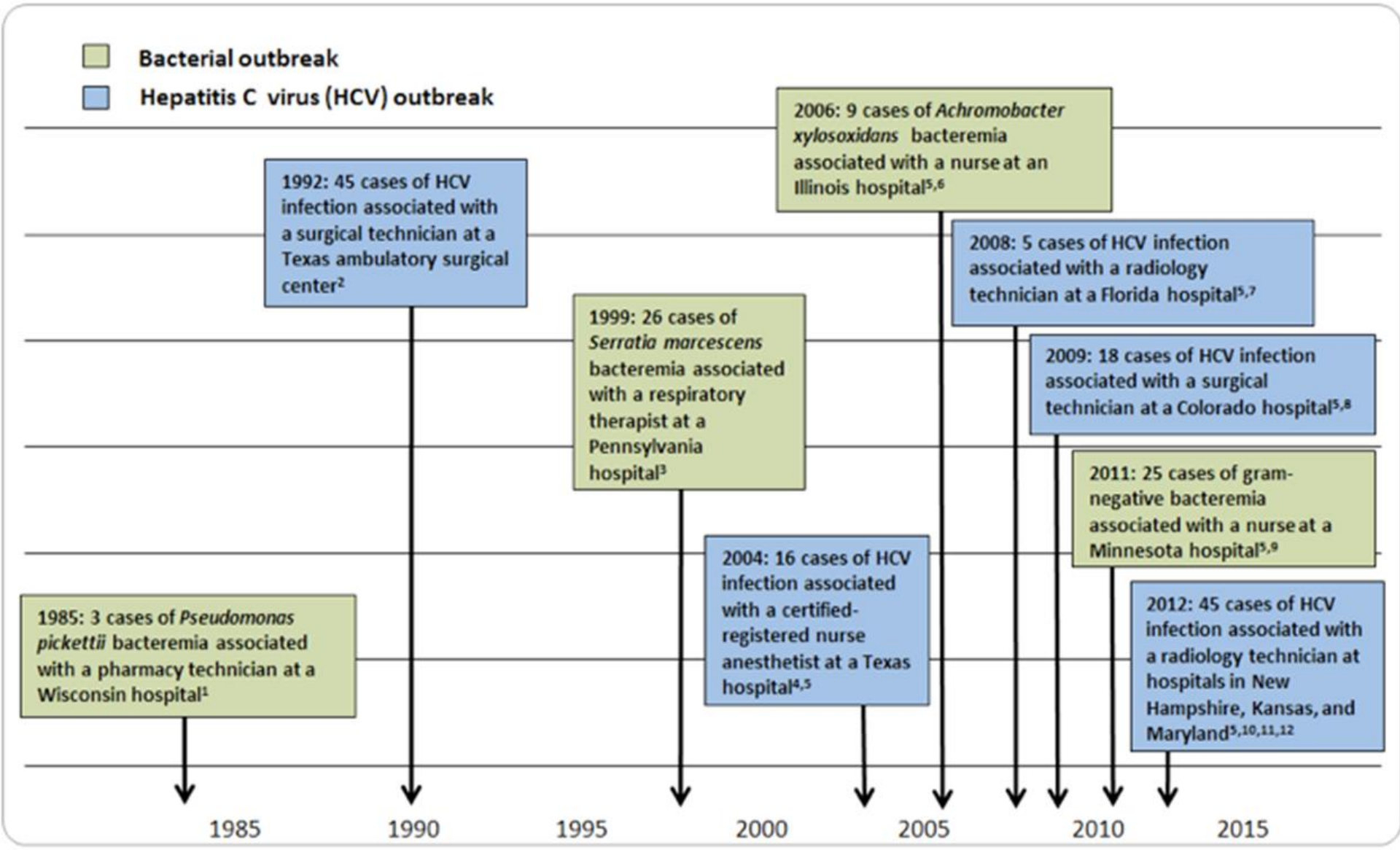
- EPIDURAL + OTHER LUMBAR INJECTIONS; 10 REQUIRED LAMENECTOMY

NYC – PAIN CLINIC – 9 CASES – *KLEBSIELLA PNEUMONIAE*

- SACROILIAC JOINT INJECTIONS; 4 PATIENTS HOSPITALIZED

COMMON ELEMENTS: REUSE OF SINGLE DOSE CONTRAST DYE AND OTHER UNSAFE INJECTION PRACTICES / INFECTION CONTROL DEFICIENCIES

30 YEARS of outbreaks associated with drug diversion by healthcare providers



ONE EXAMPLE OF DRUG DIVERSION

2 REPORTS OF ACUTE HCV INFECTION IN PATIENTS WHO BOTH HAD SURGICAL PROCEDURES PERFORMED BY THE SAME FACILITY

<u>INVESTIGATION LED TO:</u>

HCV-INFECTED SURGICAL TECH STOLE FENTANYL SYRINGES THAT HAD BEEN PRE-DRAWN BY ANESTHESIA STAFF AND LEFT UNLOCKED IN THE OR

TECH REFILLED CONTAMINATED SYRINGES WITH SALINE TO SWAP WITH ADDITIONAL FENTANYL SYRINGES

> 8,000 PATIENTS WERE NOTIFIED → 26 DOCUMENTED INFECTIONS

ALSO NOTIFIED: THE ASC THAT EMPLOYED TECH AFTER BEING FIRED FROM THE CO HOSPITAL AND THE NY HOSPITAL WHERE TECH WORKED PRIOR TO CO HOSPITAL

ACT TWO:
The Writers Change The Script

NOW PLAYING AT AN AMBULATORY CENTER NEAR YOU

THE DIRECTORS HAVE BEEN CLEAR:

CMS CONDITIONS FOR COVERAGE

STATE LICENSURE REGULATIONS

ACCREDITING ORGANIZATIONS

MANAGED CARE & INSURANCE CONTRACTS

PATIENT SAFETY ORGANIZATIONS

THE MAJORITY OF THESE “DIRECTORS” RELY ON GUIDANCE FROM THE “WRITERS” I.E. THE CDC.

SAFE INJECTION HAS BEEN A PART OF STANDARD PRECAUTIONS SINCE 2007

HAND HYGIENE

BARRIER PRECAUTIONS (PPE)

SHARPS SAFETY

RESUSCITATION SAFETY

SAFE MANAGEMENT OF EQUIPMENT

HANDLE LINEN AND WASTE APPROPRIATELY

KEEP THE ENVIRONMENT CLEAN

PATIENT PLACEMENT

SAFE INJECTION PRACTICES INCLUDE:

- Needles/syringes used for only one patient, then discarded immediately
- Medication vials always entered with a new, sterile needle/syringe
- Medications that are pre-drawn are labeled with time of draw, initials of person drawing, medication name/strength, and expiration date/time
- Single dose/single use medication vials are used for only one patient and discarded
- Manufactured/prefilled syringes are used for only one patient and discarded

SAFE INJECTION PRACTICES, CONT'D:

- Bags of IV solution and tubing are used for only one patient
- Injectable drug vials and IV ports are disinfected with alcohol prior to each entry
- Sharps are disposed of in a puncture-resistant sharps container
- Sharps containers are discarded when the fill line is reached (usually ¾ full)

SAFE INJECTION PRACTICES, CONT'D:

- ✓Store, prepare and distribute medications from a central location
- ✓Keep medication storage / preparation areas clean and free of contamination, >3ft. from sink

A pocket is not a storage area that is temp controlled, clean & free of contamination

- ✓Puncture IV solution containers as close as possible to time of use
- ✓Use single dose vials if at all possible- multidose vials pose a risk of cross contamination.
- ✓ Store multi-dose vials (injectables) in a centralized location, and dedicate to a single patient if accessed in a procedural area
- ✓Label multi-dose (injectable) medication vials with the date first opened and discarded within 28 days or according to manufacturer's recommendation, whichever comes first; stored in an area away from immediate patient care.
- ✓Evaluate compliance with safe practices at each step in the medication use process.

SAFE BLOOD GLUCOSE MONITORING

BLOOD GLUCOSE METER IS DEDICATED TO A SINGLE INDIVIDUAL

OR

APPROVED FOR MULTIPLE-PATIENT USE

AND

CLEANED AND DISINFECTED AFTER EVERY USE

A NEW, SINGLE-USE, AUTO-DISABLING LANCING DEVICE IS USED FOR EACH PATIENT

YOUR OPPORTUNITY TO SHINE

Take the Lead

Study your script

Memorize your lines

AND……..

Practice, practice practice

SAFE INJECTION PRACTICES IN PRE-OP

IV CATHETER INSERTION

APPLICABLE PRINCIPLES:

STORE IV FLUIDS AND SUPPLIES FOR IV ACCESS IN A CLEAN, DRY LOCATION FREE OF CONTAMINATION

FOLLOW MANUFACTURER INSTRUCTIONS

PREPARE IV FLUIDS AND TUBING AS CLOSE AS POSSIBLE TO THE TIME OF USE

LABEL THE IV FLUID CONTAINER WITH THE DATE AND TI

USE ONE PER PATIENT:

- IV FLUID
- IV INSERTION CATHETER
- IV TUBING

DON'T FORGET HAND HYGIENE & GLOVES

USP CHAPTER 797

- CHAPTER 797 APPLIES TO PHARMACIES WHERE COMPOUNDING IS PERFORMED
- ASC'S ARE NOT EQUIPPED WITH CLEAN ROOMS AND HOODS
- THEREFORE CONTINUE TO PRACTICE THE ONE HOUR RULE UNTIL FURTHER NOTICE
- **FOLLOW PRODUCT MANUFACTURER INSTRUCTIONS**

CHECKING PATIENT'S BLOOD GLUCOSE

APPLICABLE PRINCIPLES:

APPROPRIATE STORAGE OF CLEAN SUPPLIES AND EQUIPMENT

CLEAR SEPARATION OF CLEAN AND CONTAMINATED ITEMS AND AREAS

A NEW, SINGLE-USE, AUTO-DISABLING LANCING DEVICE IS USED FOR EACH PATIENT

BLOOD GLUCOSE MONITOR IS CLEANED AND DISINFECTED AFTER EVERY USE WITH AN EPA-REGISTERED DISINFECTANT

DON'T FORGET HAND HYGIENE & GLOVES

CLEANING/DISINFECTION OF BLOOD GLUCOSE METER

USE A PRODUCT THAT IS COMPATIBLE WITH THE DEVICE – THE MANUFACTURER OF ANY FDA-APPROVED DEVICE MUST RECOMMEND A DISINFECTANT

ALCOHOL IS NOT AN EPA-REGISTERED DISINFECTANT, IT IS AN ANTISEPTIC

ALCOHOL DOES NOT EFFECTIVELY ELIMINATE BLOOD-BORNE PATHOGENS

DON'T FORGET HAND HYGIENE & GLOVES

ADMINISTERING INJECTABLE MEDS

STORE ALL MEDICATIONS, NEEDLES AND SYRINGES IN A CLEAN, SECURE AREA

USE A NEW STERILE, SINGLE-USE DISPOSABLE NEEDLE AND SYRINGE TO PREPARE MEDICATION

USE SINGLE DOSE VIALS ONE TIME AND DISCARD PER FACILITY POLICY

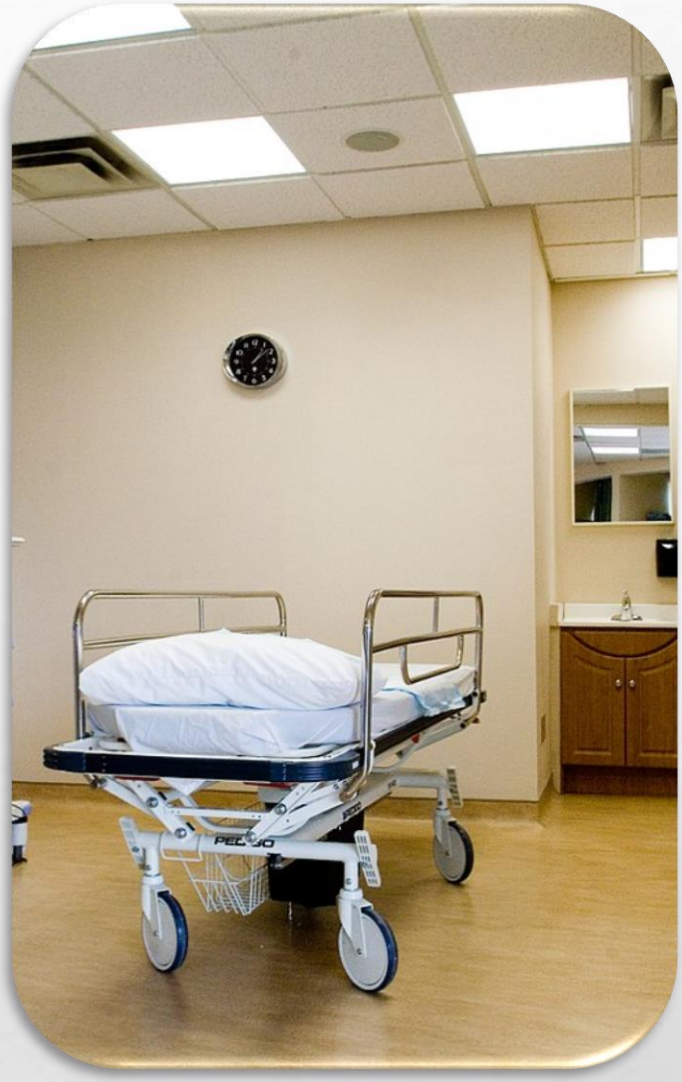
IF STORED AND ACCESSED IN A DESIGNATED MEDICATION PREPARATION AREA, MULTI-DOSE VIALS MAY BE LABELED WITH THE DATE FIRST ACCESSED AND USED FOR 28 DAYS OR BY THE MANUFACTURER'S EXPIRATION DATE, WHICHEVER COMES FIRST

CLEANSE THE SEPTUM OF THE MEDICATION VIAL WITH ALCOHOL PRIOR TO NEEDLE INSERTION, EVEN IF THE VIAL HAS JUST BEEN OPENED

CLEANSE THE IV PORT WITH ALCOHOL PRIOR TO ACCESSING FOR MEDICATION ADMINISTRATION

DISCARD THE NEEDLE AND SYRINGE AFTER ADMINISTERING MEDICATION

DON'T FORGET HAND HYGIENE



SAFE INJECTION PRACTICES IN THE PROCEDURE ROOM

YOUR CHANCE TO WIN AN OSCAR FOR BEST SUPPORTING ACTOR!

APPLICABLE PRINCIPLES (ANESTHESIA PROVIDER):

STORE ALL MEDICATIONS, NEEDLES AND SYRINGES IN A CLEAN, SECURE AREA

USE A NEW STERILE, SINGLE-USE DISPOSABLE NEEDLE AND SYRINGE TO PREPARE MEDICATION

USE SINGLE DOSE VIALS ONE TIME AND DISCARD PER FACILITY POLICY

USE MULTI-DOSE VIALS FOR ONE PATIENT ONLY (WHEN ACCESSED IN A PATIENT CARE / PROCEDURAL AREA MUST BE USED FOR A SINGLE PATIENT AND DISCARDED AT THE END OF THE PROCEDURE)

CLEANSE THE SEPTUM OF THE MEDICATION VIAL WITH ALCOHOL PRIOR TO NEEDLE INSERTION, EVEN IF THE VIAL HAS JUST BEEN OPENED

CLEANSE THE IV PORT WITH ALCOHOL PRIOR TO ACCESSING FOR MEDICATION ADMINISTRATION

DISCARD THE NEEDLE AND SYRINGE AFTER ADMINISTERING MEDICATION

DON'T FORGET HAND HYGIENE

ADDITIONAL CONSIDERATIONS:

APPLICABLE PRINCIPLES:

APPROPRIATE STORAGE OF CLEAN SUPPLIES AND EQUIPMENT IN AND ON TOP OF ANESTHESIA MED CARTS

CLEAR SEPARATION OF CLEAN AND CONTAMINATED ITEMS AND AREAS

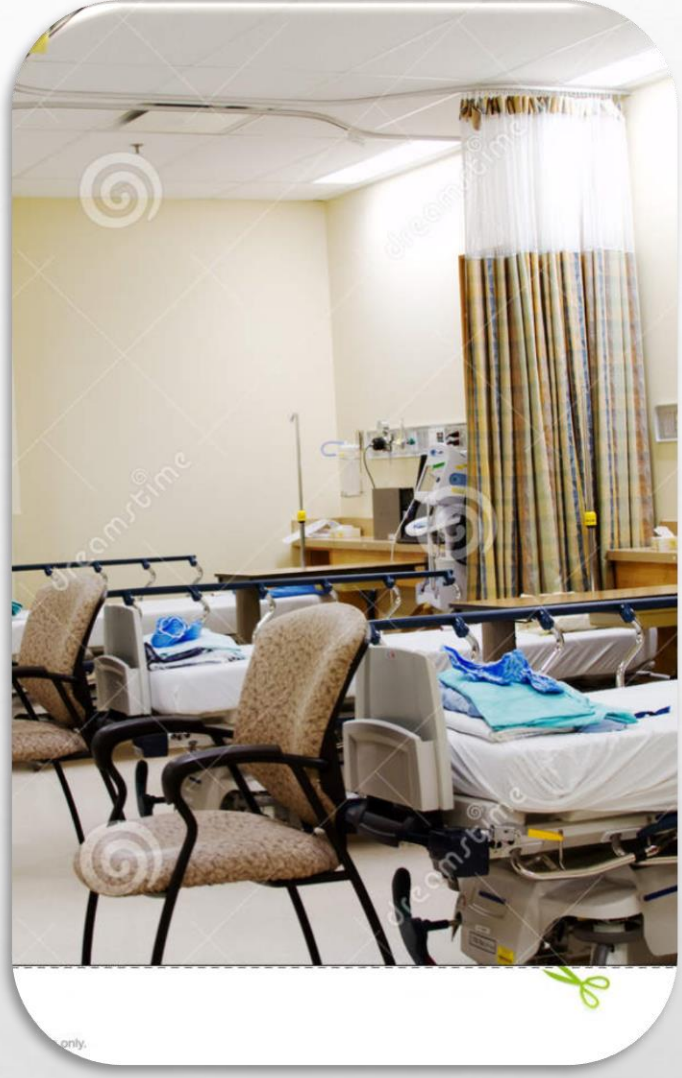
PREPARE MEDICATIONS FOR ONLY THE PATIENT IN THE ROOM OR ABOUT TO ENTER THE ROOM

– DO NOT PREPARE MEDICATIONS FOR PATIENT B WHILE PATIENT A IS IN THE ROOM

– DO NOT PREPARE MEDICATIONS FOR THE WHOLE DAY OR FOR SEVERAL PATIENTS AT A TIME

ANESTHESIA CART MUST BE LOCKED WHEN UNATTENDED

ALL WORK SURFACES MUST BE CLEANED AND DISINFECTED AFTER EACH PATIENT



SAFE INJECTION PRACTICES IN RECOVERY

ADMINISTERING INJECTABLE MEDS

APPLICABLE PRINCIPLES:

STORE ALL MEDICATIONS, NEEDLES AND SYRINGES IN A CLEAN, SECURE AREA

USE A NEW STERILE, SINGLE-USE DISPOSABLE NEEDLE AND SYRINGE TO PREPARE MEDICATION

USE SINGLE DOSE VIALS ONE TIME AND DISCARD PER FACILITY POLICY

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DISCARD THE NEEDLE AND SYRINGE AFTER ADMINISTERING MEDICATION

DON'T FORGET HAND HYGIENE

IV CATHETER REMOVAL

REMOVE CATHETER AND DISCONNECT TUBING FROM FLUID CONTAINER

DRAIN FLUID FROM CONTAINER PER FACILITY POLICY

DISCARD TUBING AND EMPTY FLUID CONTAINER PER FACILITY POLICY

DON'T FORGET HAND HYGIENE & GLOVES

ACT THREE: A Block-buster in the Making

LIGHTS, CAMERA, ACTION!

SYSTEMS ENGINEERING

AN INTERDISCIPLINARY APPROACH TO ACHIEVE SUCCESSFUL SYSTEMS

FOCUSES ON DEFINING CUSTOMER AND PROCESS NEEDS

INTEGRATES ALL DISCIPLINES AND SPECIALTY GROUPS INTO A TEAM EFFORT

PROCEEDS FROM CONCEPT > PRODUCTION > OPERATION

OFTEN INCLUDES INTRODUCTION OF NEW TECHNOLOGY TO IMPROVE OUTCOME

SYSTEM FAILURE

OCCURS WHEN THE FAILURE OF KEY COMPONENT(S) BRINGS THE WHOLE SYSTEM TO A HALT

LACK OF PLANNING / FORESIGHT LEADS TO BREAKDOWN OF COMPLEX PROCESSES

PREDICTING / PREVENTING THE FAILURE REQUIRES ANALYSIS OF UNDERLYING CAUSES OF FAILURE AND ENGINEERING THE SYSTEM FOR SUCCESS

ENGINEERING FOR SAFETY

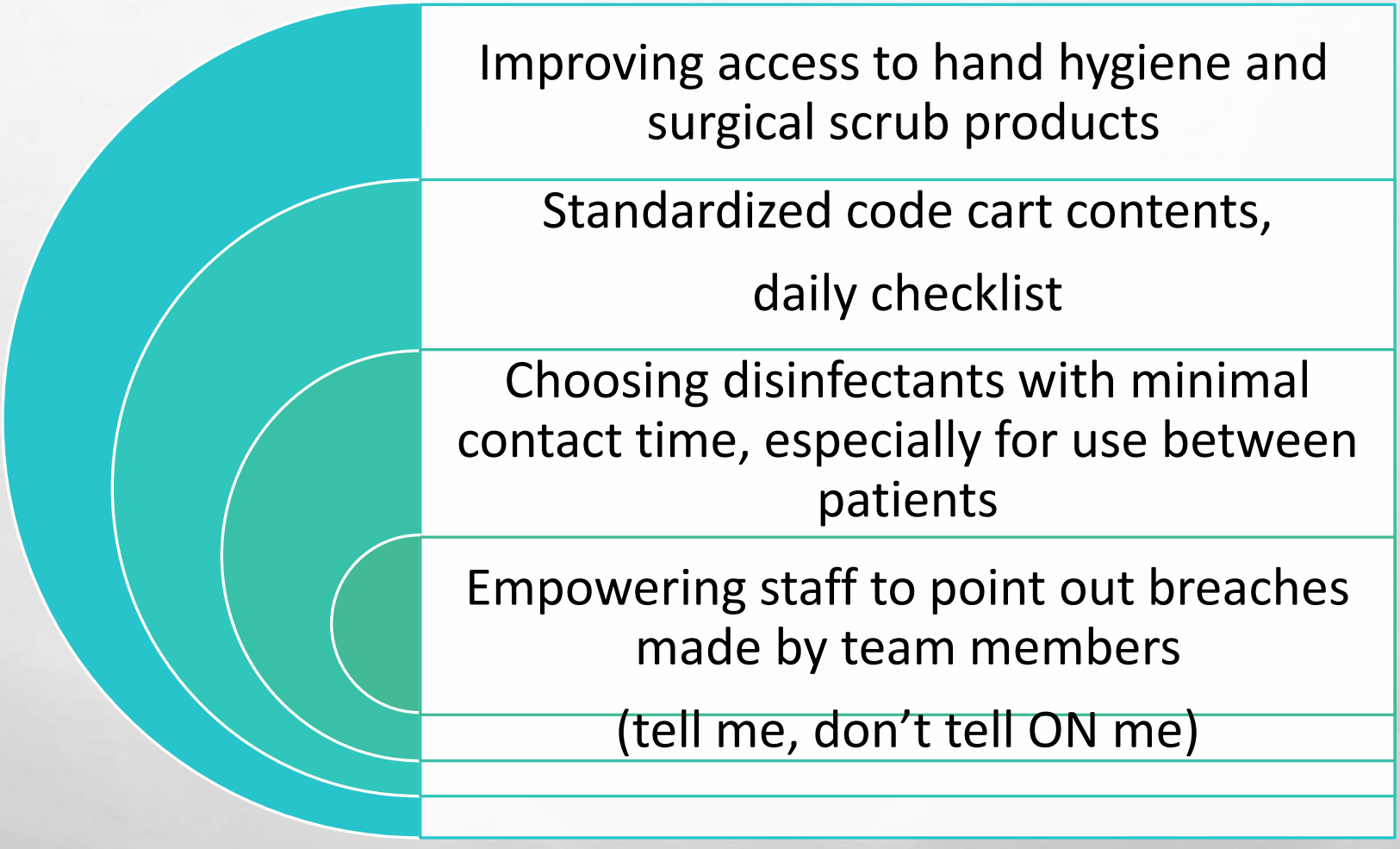
EVERY SYSTEM IS PERFECTLY DESIGNED TO ACHIEVE THE RESULTS IT GETS

PRINCIPLES OF SAFE DESIGN INCLUDE STANDARDIZATION, CREATING CHECKLISTS, LEARNING WHEN THINGS GO WRONG

THESE PRINCIPLES APPLY TO TECHNICAL AND TEAM WORK

TEAMS MAKE WISE DECISIONS WHEN THERE IS DIVERSE AND INDEPENDENT INPUT

EXAMPLES – ENGINEERING FOR SAFETY

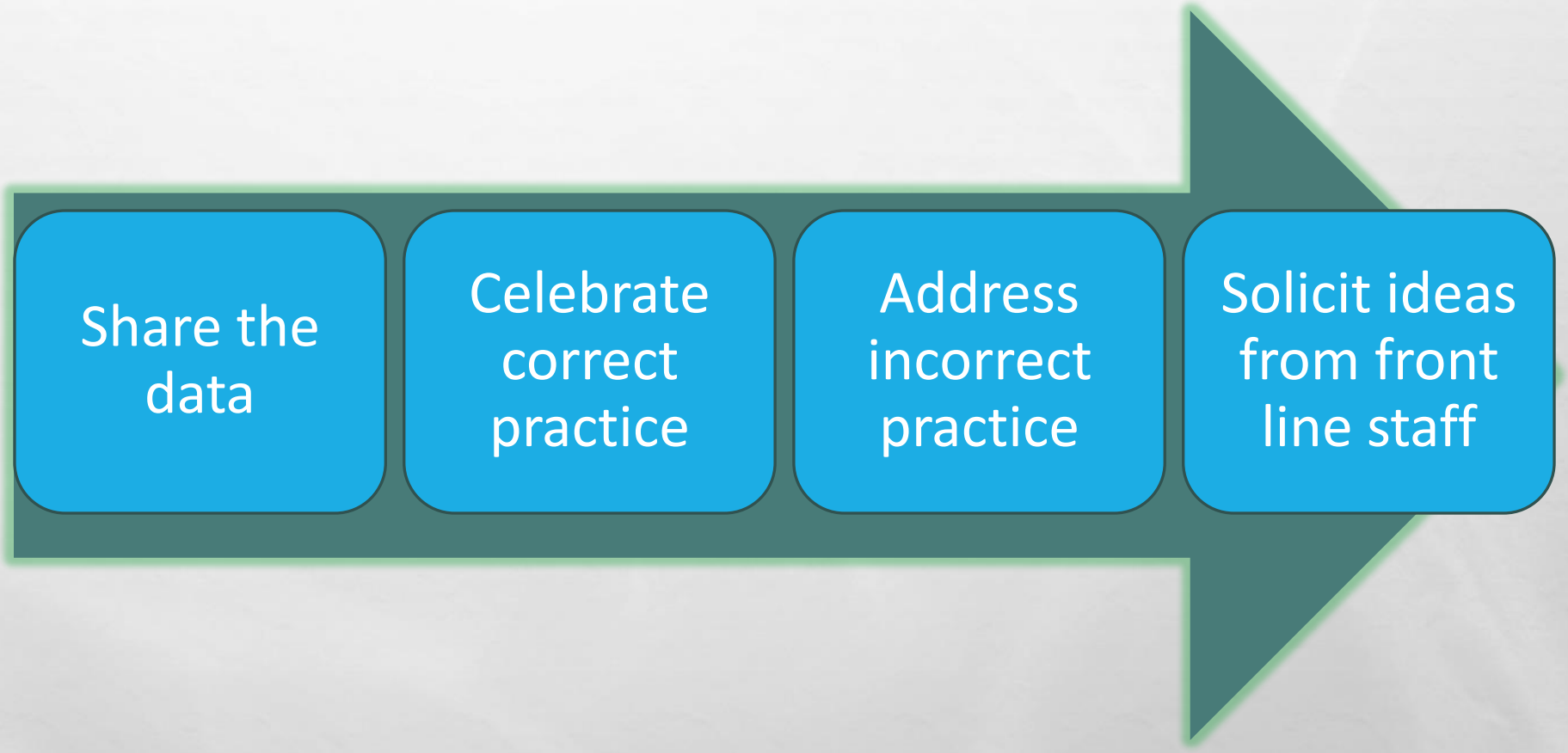


GETTING CLINICIANS ON BOARD

CORRECTING THE COURSE REQUIRES A TEAM APPROACH AND CREATIVITY TO MAXIMIZE COMPLIANCE

USE ALL AVAILABLE RESOURCES TO STEER YOU IN THE RIGHT DIRECTION

Getting Clinicians On Board



SUMMARY OF INJECTION SAFETY PRINCIPLES

Use aseptic technique and safety technology

Never administer meds from the same syringe to multiple patients

Do not reuse a syringe to enter a medication vial/solution

Do not administer meds from a single-dose vial or bag to more than one patient

Limit use of multiple use vials and dedicate them to a single patient when possible

Prepare medication in clean areas

Remove needles/syringes from sterile package at time of use, fill at time of use

Follow guidelines for assisted blood glucose monitoring and other point-of-care testing

RESOURCES TO IMPROVE COMPLIANCE

CDC's One and Only Campaign

https://www.cdc.gov/injectionsafety/one-and-only.html

APIC Position Paper:

Safe Injection, Infusion and Medication Vial in Health Care (2016); Association For Professionals in Infection Control and Epidemiology, Inc. www.apic.org

ASC Quality Collaboration

http://www.ascquality.org/SafeInjectionPracticesToolkit.cfm

The One and Only Campaign

CDC. Injection safety: every provider's responsibility.

Injection Safety

Related Links
One & Only Campaign

Infection Prevention during Blood Glucose Monitoring and Insulin Administration

On this Page

Summary

The Centers for Disease Control and Prevention (CDC) has become increasingly concerned about the risks for transmitting hepatitis B virus (HBV) and other infectious diseases during assisted blood glucose (blood sugar) monitoring and insulin administration.

CDC is alerting all persons who assist others with blood glucose monitoring and/or insulin administration of the following infection control requirements:

Contact Us:
Centers for Disease Control and Prevention
1600 Clifton Rd
Atlanta, GA 30333
800-CDC-INFO
(800-232-4636)
TTY: (888) 232-6348
Contact CDC–INFO

DRUG DIVERSION* SPREADS INFECTION FROM HEALTHCARE PROVIDERS TO PATIENTS

HEALTHCARE PROVIDER
with Hepatitis C or other bloodborne infection tampers with injectable drug

CONTAMINATED INJECTION EQUIPMENT AND SUPPLIES
present in the patient care environment

EXPOSURE OF PATIENT
results from use of contaminated drug or equipment for patient injection or infusion

1 ONE NEEDLE, ONE SYRINGE, ONLY ONE TIME.

*Drug diversion occurs when prescription medicines are obtained or used illegally by healthcare providers.

FOR MORE INFORMATION, VISIT CDC.GOV/INJECTIONSAFETY/DRUGDIVERSION

AND THE OSCAR GOES TO.....

YOU!

...ACCEPT IT ON BEHALF OF YOUR PATIENTS!

QUESTIONS???