



Hospital Infection Control Team

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EMPLOYEE VACCINATION

% of employees provided pre-exposure prophylaxis

Formula: $\frac{\text{Number of employees who were provided pre-exposure prophylaxis}}{\text{Number of employees who were due to be provided pre-exposure prophylaxis}} \times 100$

Benchmark: Not available (HAIS), Not found (INICC)

Proposed Target : 90

	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sept-23
No of employee working	453	447	447	446	447	448
1st dose HBV	435	429	429	426	431	431
% of employee taken at least single dose of Hepatitis B	96.03	95.97	95.97	95.52	96.42	96.21

VACCINATION

Month	Hep-B 1 st Dose	Hep-B 2 nd Dose	Hep-B 3 rd Dose
Apr-23	63	24	6
May-23	72	52	19
Jun-23	12	46	76
Jul-23	7	28	49
Aug-23	21	17	41
Sept-23	26	22	36

Month	Td 1 st Dose	Td 2 nd Dose	Td 3 rd Dose
Apr-23	0	1	0
May-23	0	4	1
Jun-23	0	0	0
Jul-23	2	0	0
Aug-23	8	10	19
Sept-23	5	5	14

Bundle Care Approach



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CONCEPT OF A BUNDLE

Several
elements
done
simultaneou
sly

Consistently
result in
better
outcomes

Greater
quality than
elements
done
independent
ly

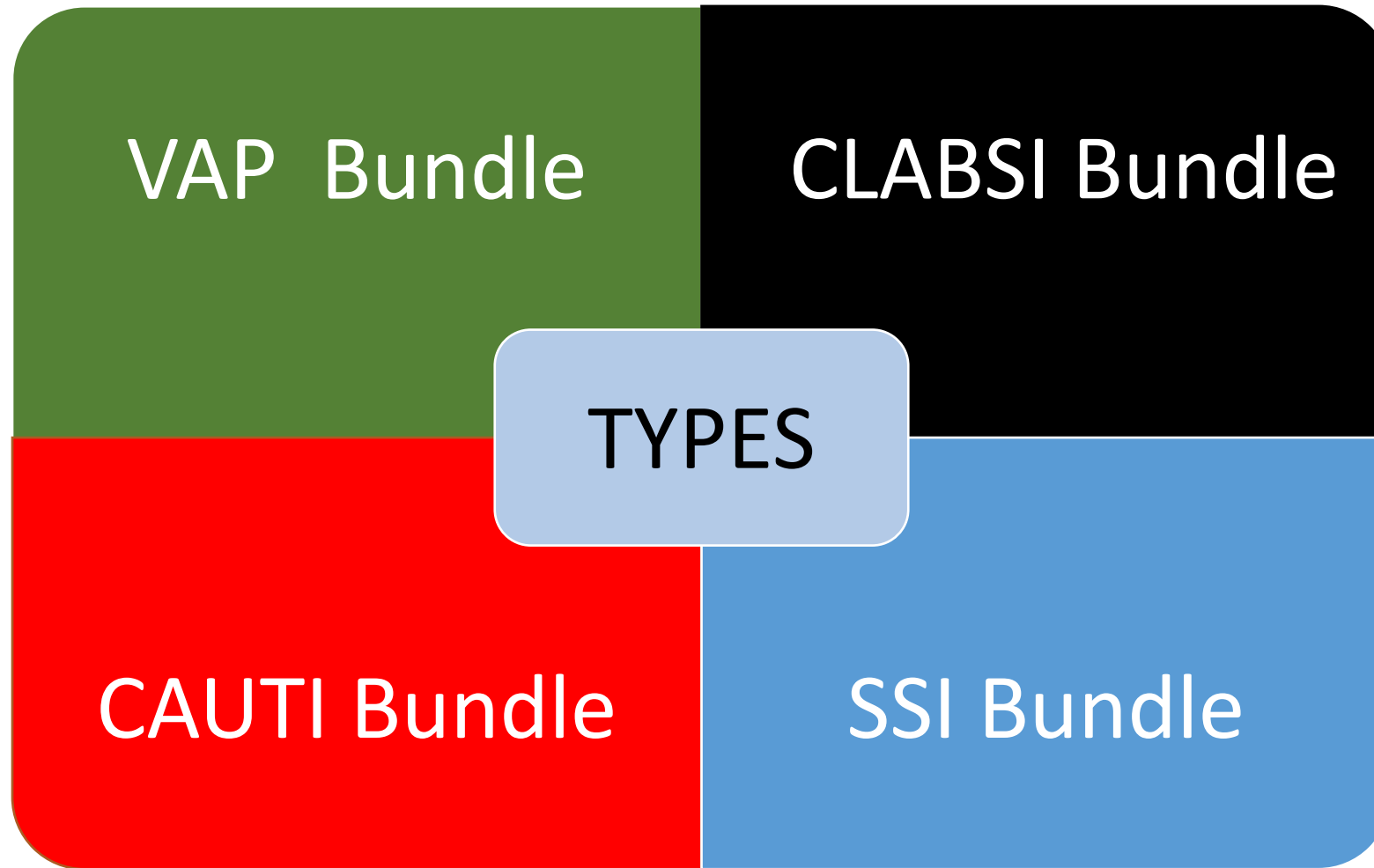
Systems
must ensure
all elements
applied to all
patients

Limit
bundle
elements

DEFINITION

A care bundle is a structural way of improving care and patient outcome. The care bundle involves grouping together key elements of care for procedures in order to provide a systemic method to improve and monitor the delivery of clinical care processes.

A group of interventions with a common purpose

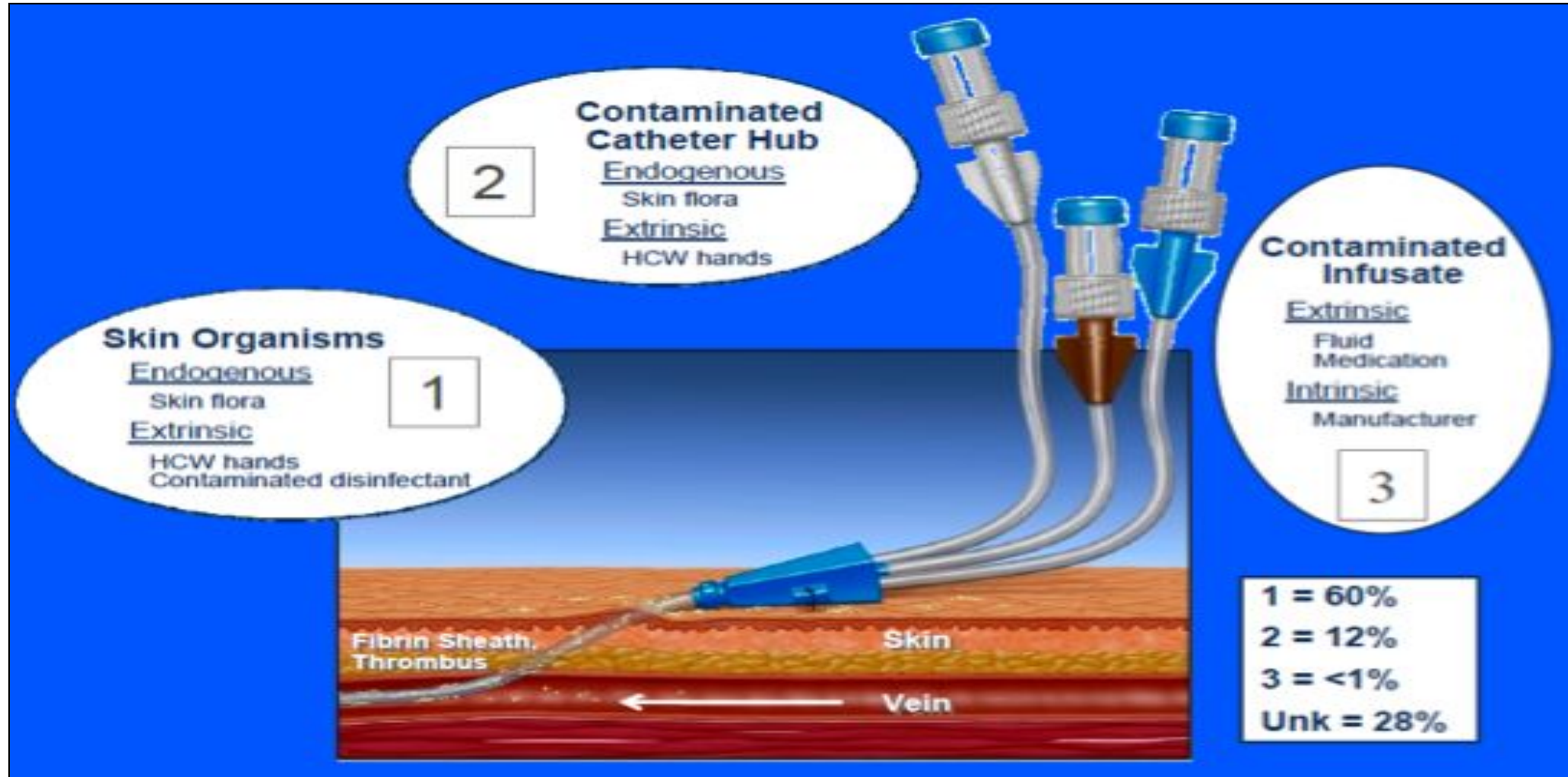


CENTRAL LINES

Intravascular catheter that terminates at or close to the heart or in one of the **GREAT VESSELS** which is used for infusion, blood withdrawal or hemodynamic monitoring.

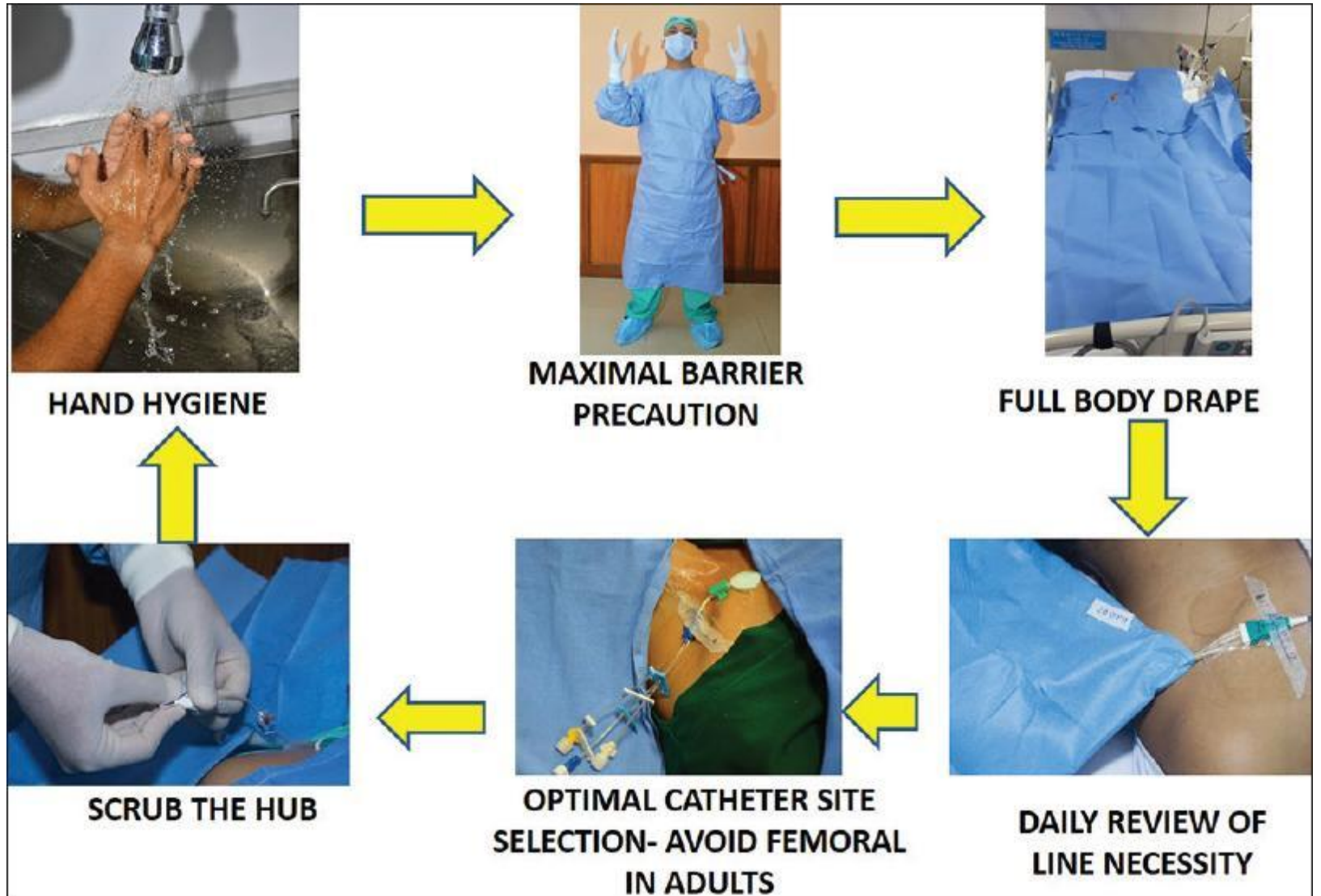


CLABSI PATHOGENESIS

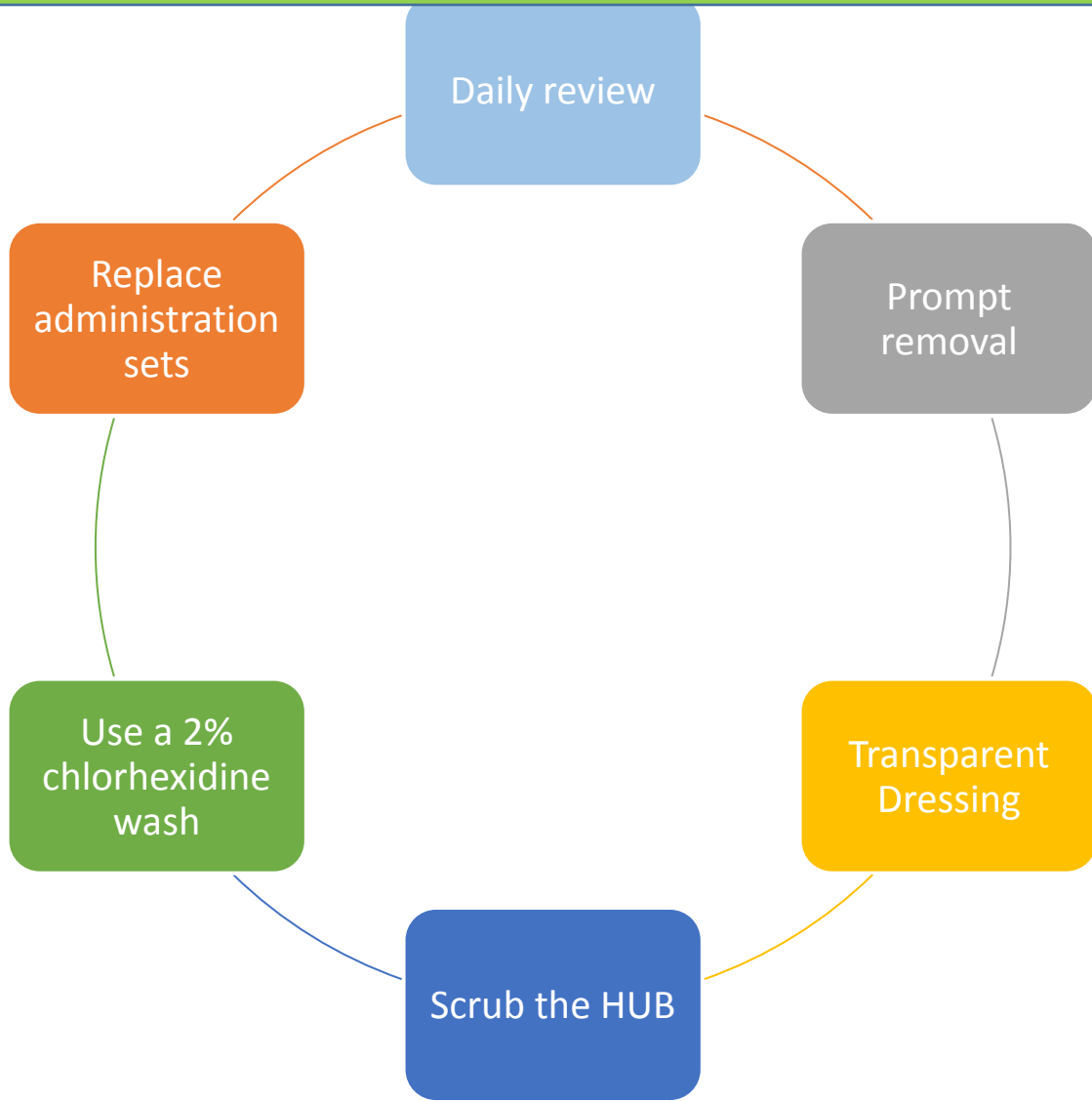


DO's

Central line Insertion Bundle



DO's



MAINTENANCE OF CENTRAL VENOUS CATHETERS

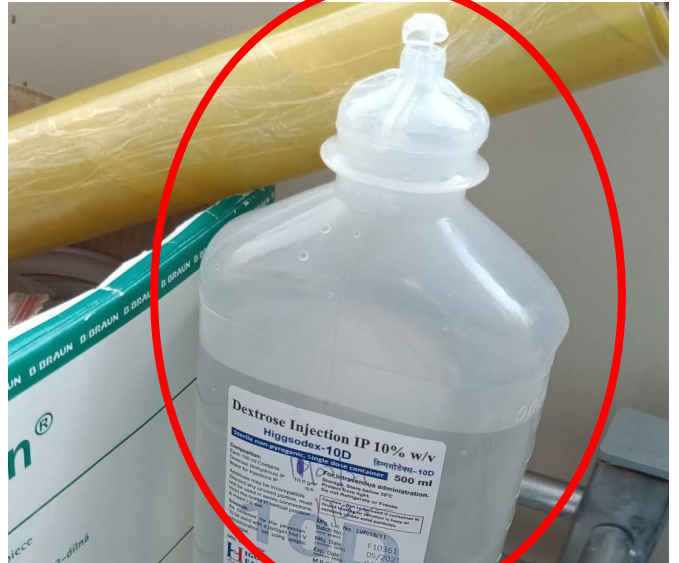
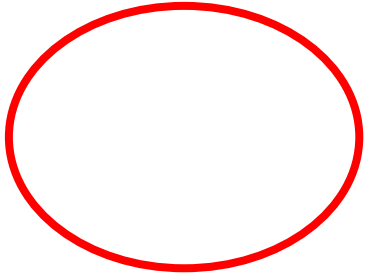


CARE OF SITE: "SCRUB THE HUB"



Figure 15 : Method of scrubbing the hub

DONT's



CENTRAL LINE ASSOCIATED BLOOD STREAM INFECTION RATE

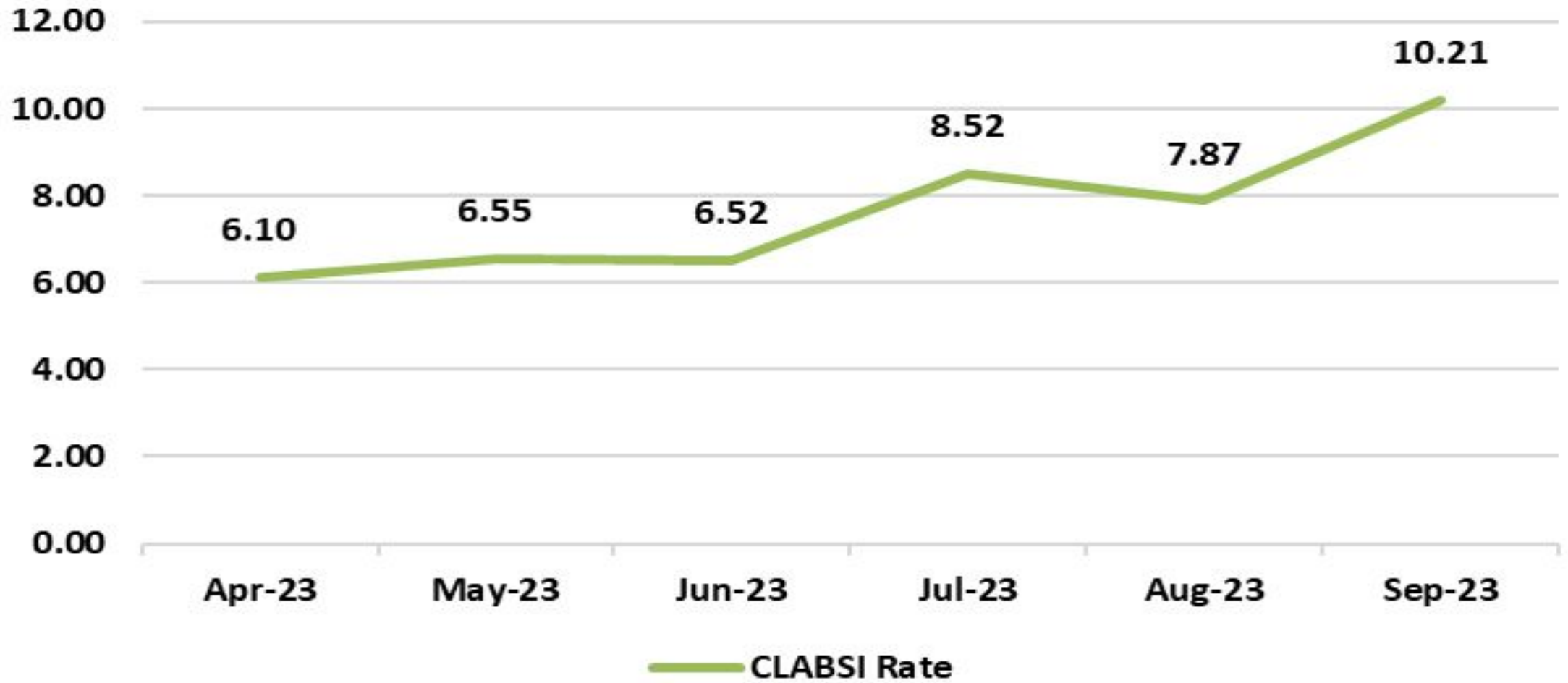
Formula: $\frac{\text{Number of Central line associated BSIs in a month} \times 1000}{\text{Number of Central line days in that month}}$

Benchmark: 0.9 (CDC), 9.07 (HAIS), 4.1-5.1 (INICC)

Target : 5.0

Months	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sept-23
No. of CLABSI	18	20	19	27	26	31
No. of Central Line Days	2951	3054	2913	3170	3302	3036
CLABSI Rate	6.10	6.55	6.52	8.52	7.87	10.21

CLABSI Rate (Apr-23 to Sept-23)



CAUTI BUNDLE

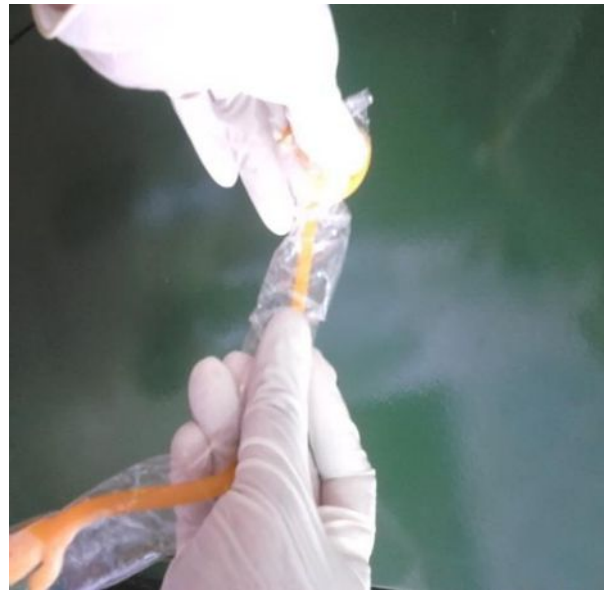


PREVENTION OF CATHETER
ASSOCIATED URINARY TRACT
INFECTIONS

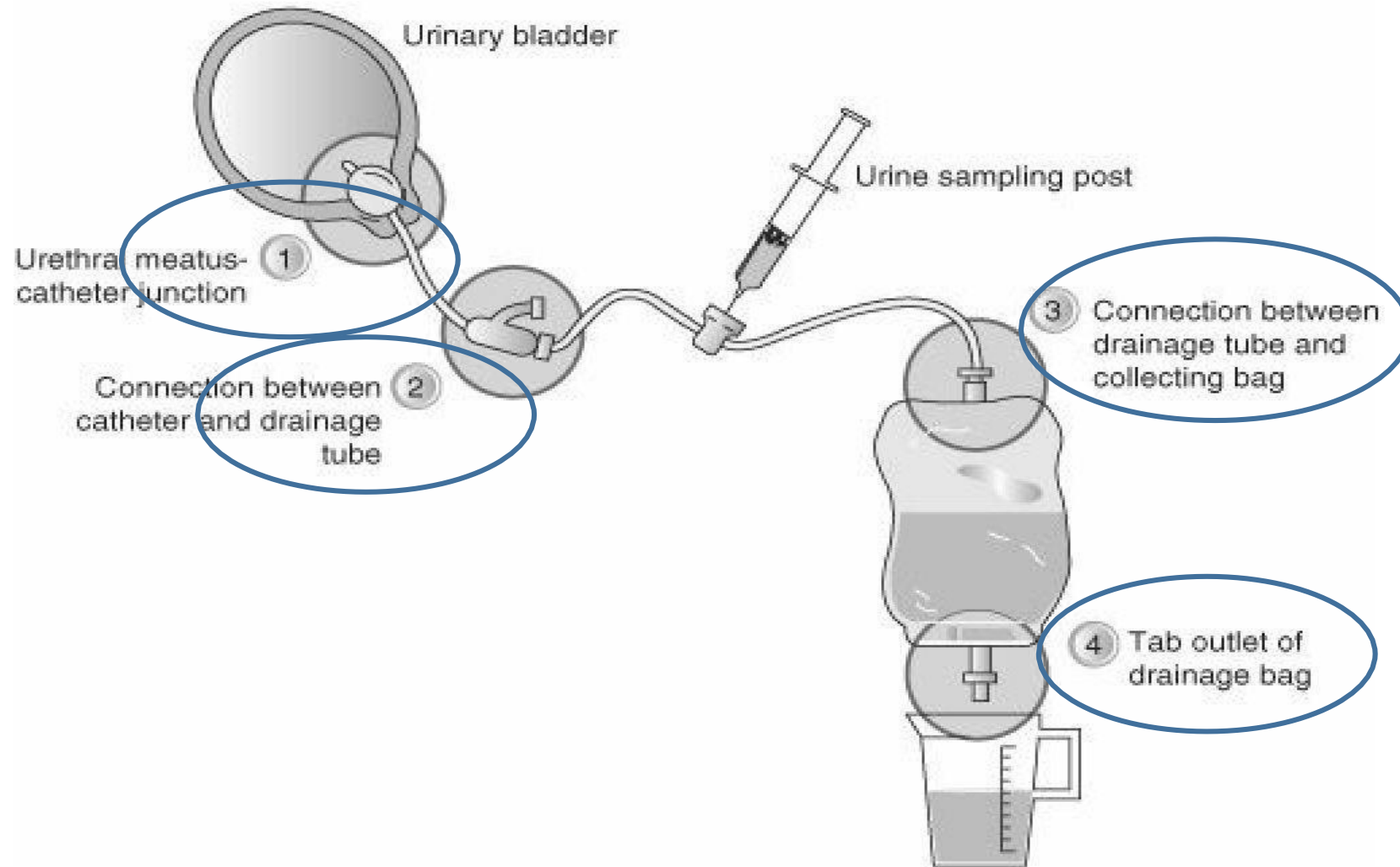
(CAUTIs)

CAUTI BUNDLE APPROACH

- **Indwelling Urinary Catheter:** A drainage tube that is inserted into the urinary bladder through the urethra, is left in place, and connected to a drainage bag. This is also called a Foley catheter.



Route for transmission of Infection



C

Catheter Removal

Think about catheters in any of your residents. Are the catheters really necessary?

Remove the catheter if there is no good indication for it. (See below.)

Every resident deserves a chance to be catheter-free and infection-free.

A

Aseptic Insertion

Only trained personnel should insert catheters.

Use hand hygiene, and insert using aseptic technique.

Use the smallest catheter size that will work for the resident.

Avoid contamination of the catheter.

Use catheter securement devices.

U

Use Regular Assessments

Insert new urinary catheters only when there is a good indication.

Consider alternatives to using a urinary catheter.

Use a bladder ultrasound to guide management.

Implement a process to see whether residents need catheters.

T

Training for Catheter Care

Train staff, resident, AND family.

Maintain a closed drainage system, and maintain unobstructed urine flow.

Use routine hygiene. Do not clean the periurethral area with antiseptics.

Routine catheter changes, urinalysis, and cultures are not required.

I

Incontinence Care Planning

Consider alternatives to using a urinary catheter when developing individual resident care plans and behavioral interventions.

Consider timed and prompted voiding and use of a voiding diary.

Remember:
No catheter
means no
CAUTI!

DO's

- Insert Catheters using aseptic technique and Sterile equipment & maintain a closed drainage system



- **Secure Catheter to the upper thigh to prevent urethral injury & Do daily catheter care**



DO's

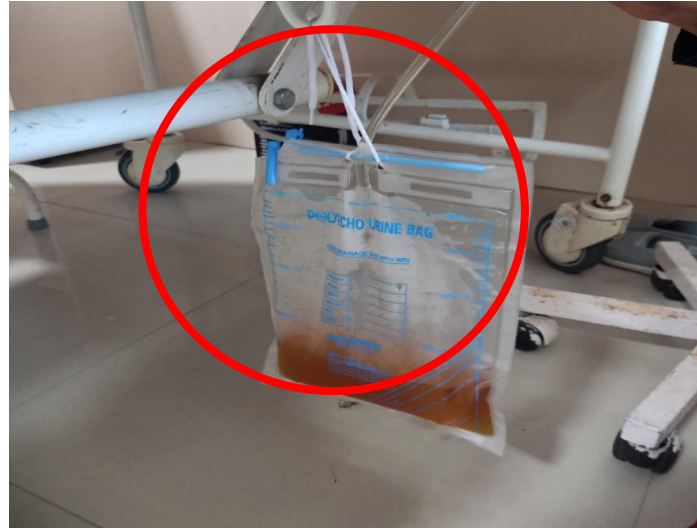
Empty urine bag regularly 6-8 hourly or earlier if 3/4th full in a separate container, Clean and disinfect it after each use



Keep the urine bag below bladder level & Maintain unobstructed urine flow and Provide patient and family education for care of patients with Foleys catheter



DONT's



S. No. 1 Standard PSQ 3b: Catheter associated Urinary tract infection rate

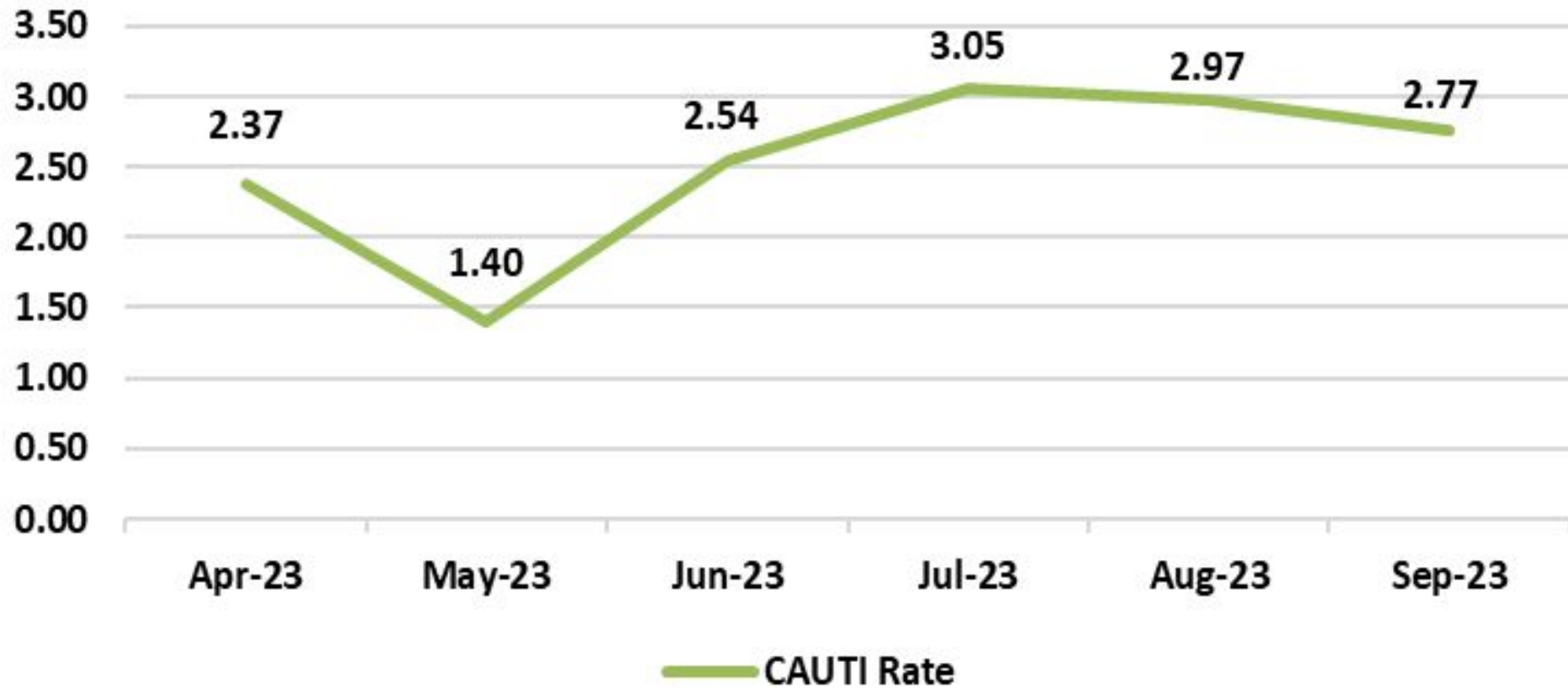
Formula: $\frac{\text{Number of urinary catheter associated UTIs in a month} \times 1000}{\text{Number of urinary catheter days in that month}}$

Benchmark: 1.21 (CDC), 3.41 (HAIS), 4.8(INICC)

Target : 2.0

Months	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sept-23
No. of HA CAUTI	11	7	12	16	16	14
Foley's Days	4635	5015	4722	5239	5389	5061
CAUTI Rate	2.37	1.40	2.54	3.05	2.97	2.77

CAUTI Rate (Apr-23 to Sept-23)

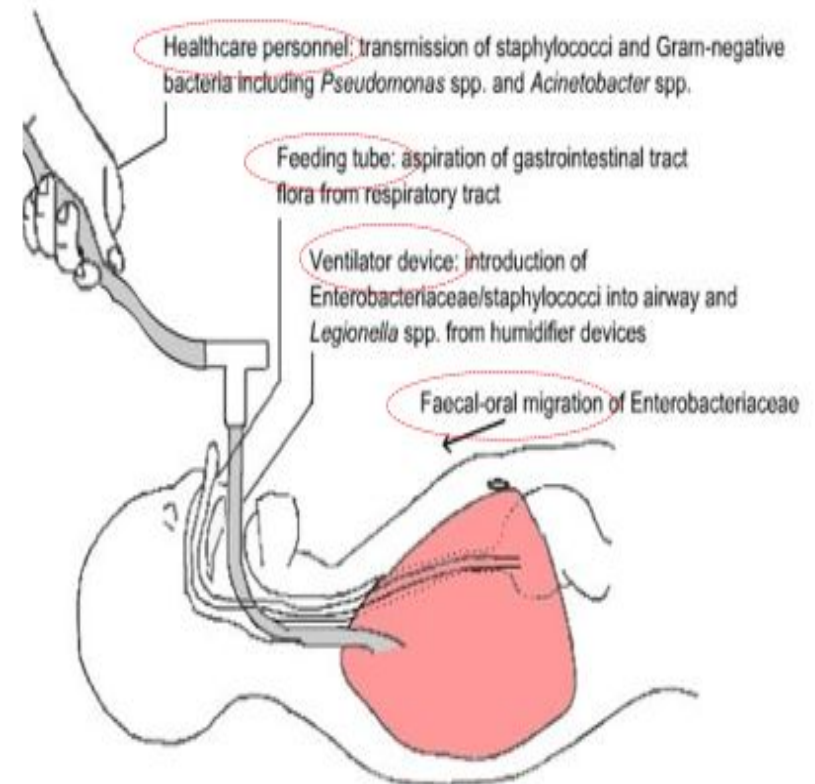


VAP BUNDLE CARE APPROACH

- Ventilator Associated Pneumonia(VAP)

A sub type of Hospital Acquired Pneumonia which occurs in patients who are on mechanical ventilation connected through an endotracheal or tracheostomy tube for more than two calendar days.

Routes of Transmission of Pathogens in VAP



DO's

Regular Medication					Time	Date	Date	Date
Drug	Dose	Route	Start Date	Stop Date	D's Sign	Time	Time	Time
Inj Pantop	40mg	IV	25/7		RE	6:20		
Remarks: PD								
Drug	Dose	Route	Start Date	Stop Date	D's Sign	Time	Time	Time
Inj Ceftriax	1g	IV	20/7		follows	8:00	9:01	
Remarks: PD								

PEPTIC ULCER PROPHYLAXIS



ELEVATION OF HEAD-END OF BED



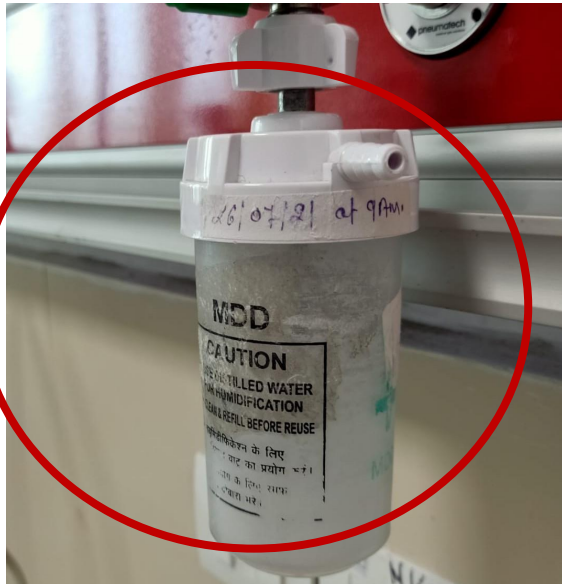
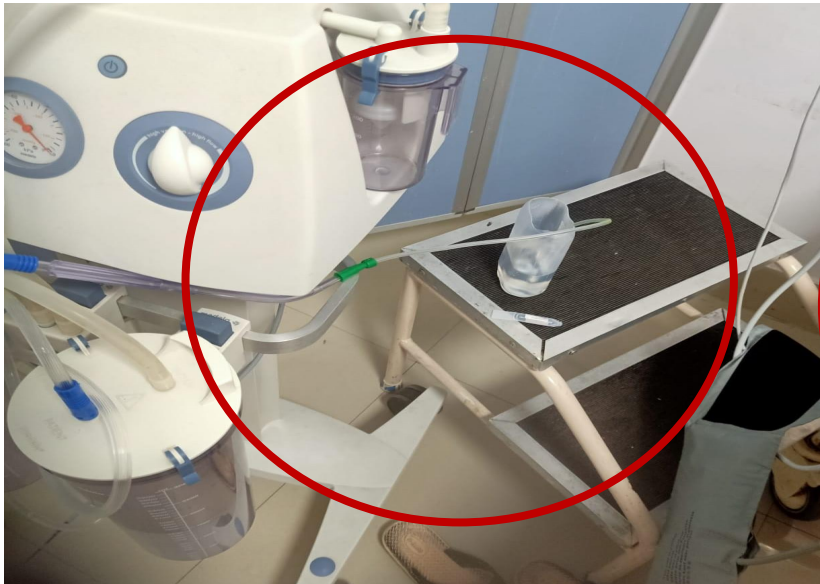
DAILY SEDATION VACATION AND ASSESSMENT OF READINESS TO EXTUBATE



DVT PROPHYLAXIS

DVT PUMP

DONT's



GENERAL MEASURES FOR PREVENTION

- Education and training
- Hand hygiene
- Proper cleaning and disinfection
- Surveillance for VAE
- Staffing level adequate
- Antibiotic rational use
- Pre op- stop smoking
- Early Post op mobilization

SPECIFIC MEASURES FOR PREVENTION

- Semi-recumbent position
- Sedative interruption
- Stress ulcer prophylaxis
- Selective oropharyngeal decontamination(Oral care)
- DVT Prophylaxis
- Subglottic suctioning
- Endotracheal Intubation
- Suction catheters
- Humidification with heat and moisture exchangers

VENTILATOR ASSOCIATED EVENTS RATE

Formula: $\frac{\text{Number of ventilator associated events in a month} \times 1000}{\text{Number of ventilator days in that month}}$

Benchmark: 6.65 (CDC), Not available (HAIS), 13.5-19.9 (INICC)

Target : 5

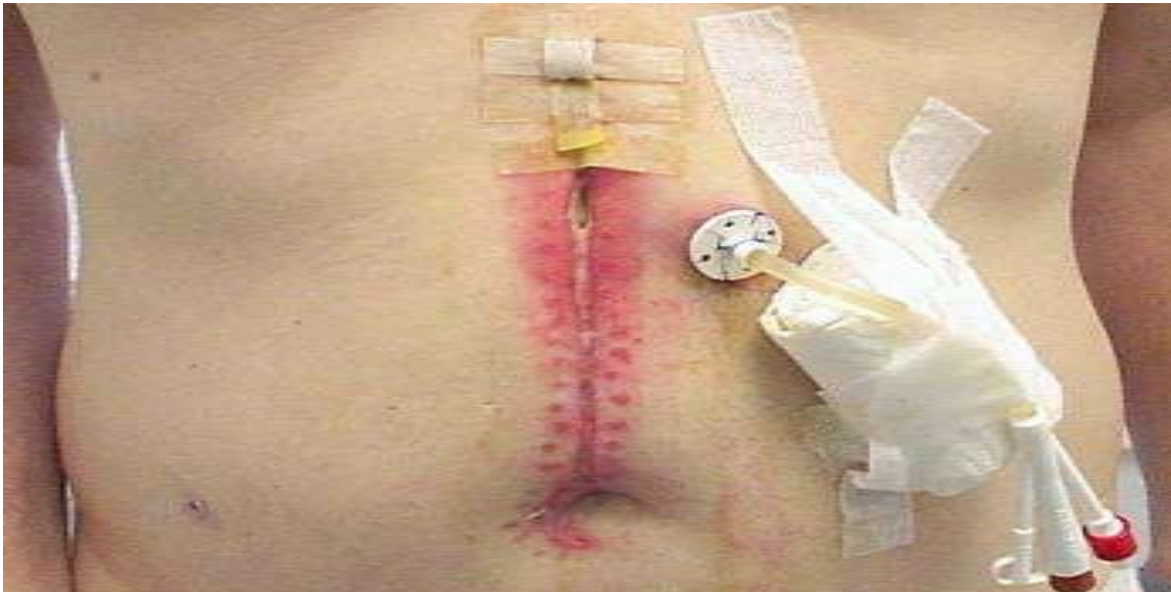
	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sept-23
No. of VAE	3	4	9	5	7	11
Ventilator Days	654	626	745	679	816	689
VAE Rate	4.59	6.39	12.08	7.36	8.58	15.97
Areas Covered	CCU 6th Floor, MICU, & Pulmo ICU	CCU 6th Floor, MICU, & Pulmo ICU	CCU 6th Floor, MICU, Pulmo ICU & 422 Neurosurgery ICU	CCU 6th Floor, MICU, Pulmo ICU & 422 Neurosurgery ICU	CCU 6th Floor, MICU, Pulmo ICU & 422 Neurosurgery ICU	CCU 6th Floor, MICU, Pulmo ICU & 422 Neurosurgery ICU

VAE Rate Apr-23 to Sept-23



SSI BUNDLE CARE APPROACH

- Surgical Site Infections are infections of the incision or organ or space that occur within **30 days** after the surgery or within **90 days** if an implant was placed.



7 “S” Bundle to Prevent SSI



SAFETY – Safe **OPERATING** ROOM



SCREEN - Screening for **risk factors** and presence of MRSA



SHOWERS – Shower - with soap or chlorhexidine - night before and morning of surgery



SKIN PREP – Skin preparation with alcohol based antiseptics, such as CHG/alcohol or Iodophor/alcohol



SOLUTION - Surgical Irrigation prior to closure to remove exogenous contaminants – use of chlorhexidine irritant vs antibiotic irrigations



SUTURES – Suture closure with Triclosan coated antimicrobial sutures



SKIN CLOSURE – Skin adhesive to seal incision and/or antimicrobial dressing to prevent exogenous contamination in post-op period

SSI And Use of Surgical Antibiotic Prophylaxis(SAP)

- Administer **Surgical Antibiotic Prophylaxis(SAP)** only when indicated based on guidelines
- Administer **120 min before incision**, considering the half-life of the antibiotic
- Avoid the **prolongation of SAP** after completion of the operation for the purpose of preventing SSI
- Preoperative antibiotic prophylaxis **should not be** continued in the presence of a wound drain for the purpose of preventing SSI.



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MAINTENANCE BUNDLE CHECKLIST

NAME:		UHID:	AGE/ SEX:	WARD/ICU:	DIAGNOSIS:			
DOA:		UNIT:	CONSULTANT/ SURGEON NAME:	SURGERY NAME:		FINAL OUTCOME:		
				DATE OF SURGERY:		DATE & TIME:		
Brief Clinical History: (On Admission)								
CLINICAL FINDINGS				DAILY ASSESSMENT				
				DATE:				
Temperature (>38°C or <36°C)								
BP <90 or mean BP 65 mm /hg								
Apnea/Bradycardia								
Dysuria /suprapubic tenderness/ Urgency/frequency								
Purulent drainage from superficial/deep incision								
PEEP (daily minimum)								
FiO2 (daily minimum)								
WBC Count (>12000 or <4000)								
Report of any Specimen culture with collection date								
Blood Culture (Central/ Peripheral)								
Urine Culture								
Respiratory Secretion Culture								
Pus/Surgical Site Culture								
New Antimicrobials								
Name & Day								

Indwelling Urinary Catheter (Silicon/Foleys)		CAUTI MAINTENANCE BUNDLE	DATE															
		Foley's Catheter Day	DAY															
Date of Insertion	Date of Removal	Assessed the catheter for early removal																
		Clean the meatus with soap and water during daily care.																
Date of Reinsertion		Foley's catheter secured properly																
		Sterile closed drainage system intact																
		Foley's catheter and tubing free of obstruction and kinks: unobstructed urine flow																
		Drainage bag always secured below the level of the bladder																
		Emptying of the drainage bag if > 75 % full																
Central Venous Catheter (IJV,SCV,PICC,Femoral,Umbilical)		CENTRAL LINE MAINTENANCE BUNDLE	DATE															
		Central Line (CL) Day	DAY															
Date of Insertion	Date of Removal	CL site covered with transparent or gauze dressing & checked for soiling, dampening, and loosening																
		CL lumens covered with gauze or sterile pad																
Date of Reinsertion		*Scrub the CL hub (assess point) vigorously for 10-15 sec before & after each manipulation																
		Flushed CL before & after giving injectable																
		Assess for early removal of CL																
		Change gauze dressing every 2 days and transparent dressings every 7 days (more frequently if soiled, damp or loose)																
Mechanical Ventilation (Endotracheal/Tracheostomy)		VAP PREVENTION BUNDLE	DATE															
		Mechanical Ventilator Day	DAY															
Date of Intubation	Date of Extubation	Head elevation >30 degree (if not contraindicated)																
		Oral care with Chlorhexidine (0.12%)																
Date of Reintubation		Absence of Condensate in the ventilator circuit																
		Aseptic techniques while doing closed suction / open suction																
		**Stress Ulcer Prophylaxis																
		***DVT Prophylaxis																
		Daily Sedation Vacation & Assessment of readiness to extubated																
Name & Signature of Care Giver Staff																		
Verified by Senior Nursing Officer/ Link ICN																		
Verified by Resident/ Faculty																		

*Scrub the CL hub with > 0.5% Chlorhexidine / 70% Isopropyl alcohol

**Stress Ulcer Prophylaxis – Proton pump inhibitors, H2 receptor antagonist etc.

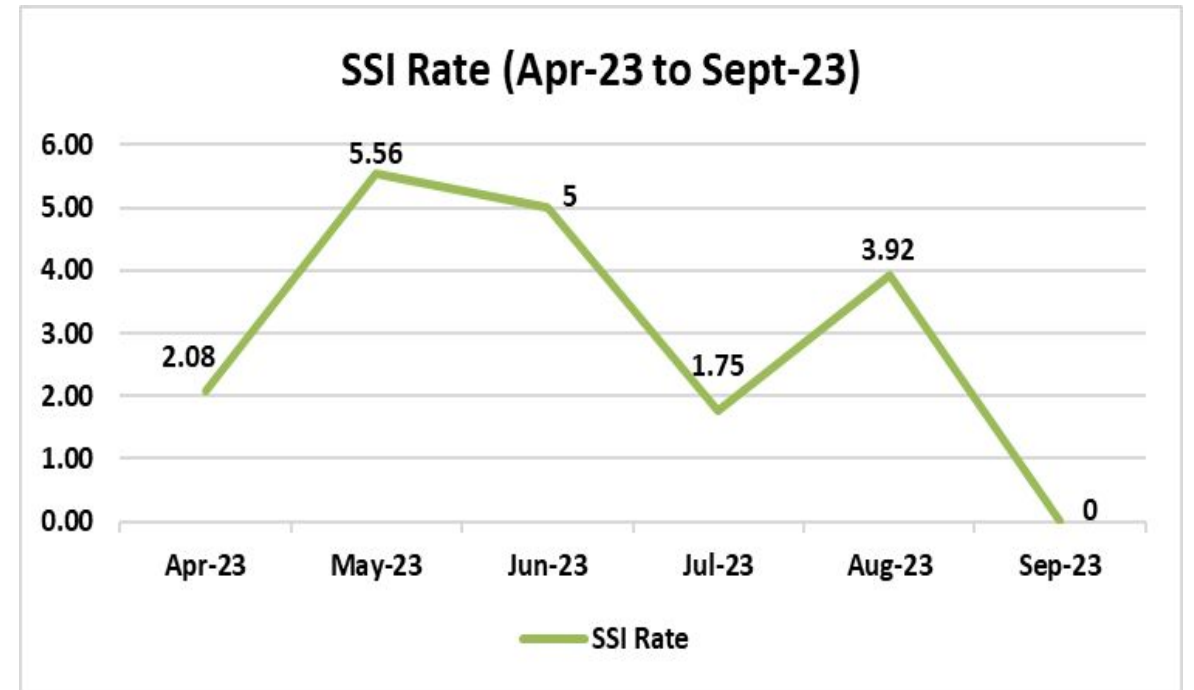
***DVT Prophylaxis – Low Molecular weight heparin, DVT pump, Compression devices etc.

SURGICAL SITE INFECTION RATE

Formula: $\frac{\text{Number of surgical site infection in a month} \times 100}{\text{Number of Surgery performed in that month}}$

Benchmark: Different for different type of surgery(CDC), Not available (HAIS), Not available (INICC)
Target: 5.0

	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sept-23
No. of SSI	1	3	2	1	2	0
Total no. of surgery (Paediatric surgery)	48	54	40	57	51	55
SSI Rate (%)	2.08	5.56	5	1.75	3.92	0



“To be **‘in charge’** is certainly not only to carry out the **proper measures** yourself but to see that everyone else does so too.”

Florence Nightingale



Thank
you

