

Infection Prevention, Surveillance and Care Bundles In Critical care Medical staff

Critical care has a long established pro-active commitment to infection prevention.

Mandatory Learning

Medical staff in Critical Care must complete the following courses available in LearnPro

NES: Aseptic Technique

- Module 1 Principles of Aseptic Technique
- Module 2 Insertion of a Peripheral Vascular Catheter
- Module 3 Taking a Blood Culture Sample

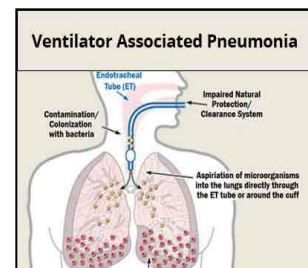
ANTT Antiseptic non touch technique

- One module with a practical assessment also required.

Within critical care we use care bundles to improving the processes of care and patient outcomes. A bundle is a set of evidence-based practices that, when performed collectively and reliably, have been proven to improve patient outcomes. We audit all bundles within the unit monthly.

VAP Bundle

- **Wake and wean**
 - Daily sedation hold when appropriate, note exclusions
 - Weaning plan documented
 - Optimal sedation
- **Min 30 degree angle (HEAD UP)**
(unless clinically contraindicated)
- **Sub glottic drainage tubes** as soon as clinically possible
- **Effective oral hygiene**



Insertion and maintenance of Central Venous Catheter (CVC)

Insertion: Complete the Invasive line insertion box on the devices chart, for every new line inserted.

Daily assessment: Should include

- Where is it?
- How long has it been in situ?
- Is it needed? **Question the need for CVC daily**
- Any signs of infection at site and is the dressing clean, dry and intact

Invasive Line													
Line Type (circle):	CVC	Arterial	CVVH	PA cath									
Date:	Time:		Operator:										
Site:													
USS:	Anatomy check	Visualised insertion	Not used										
Procedure Checklist: Difficulties/Adjuncts/Complications:													
Antiseptic hand scrub <input type="checkbox"/>													
Gown/gloves/hat/mask <input type="checkbox"/>													
CHG skin prep <input type="checkbox"/>													
Aseptic insertion <input type="checkbox"/>													
Stitched to secure <input type="checkbox"/>													
Line transduced <input type="checkbox"/>													
Operator's Signature:													
Post insertion CXR YES <input type="checkbox"/> N/A <input type="checkbox"/> reviewed by:													
Day No.	1	2	3	4	5	6	7	8	9	10	11	12	
Site Clean Y/N													
Dressing/Flush Y/N													
Still required Y/N													

Follow [Critical Care Guidelines on Intranet](#) for samples to send if infection is suspected.

Insertion and maintenance of Peripheral Vascular Catheter (PVC)

Insertion: Complete PVC insertion box of the device chart, for every new PCV inserted

PVC daily assessment: Should include

- Where is it?
- How long has it been in situ?
- Is it needed? Remove PVC if not being used
- Any signs of infection?

Peripheral Venous catheter													
Date:	Time:		Operator:										
Size (circle):	Pink	Green	Brown	Grey									
Site:	Right	Left	Hand	ACF	Forearm	Foot							
Procedure Checklist: Difficulties/Complications:													
Hand hygiene <input type="checkbox"/>													
Chlorhexidine prep <input type="checkbox"/>													
Aseptic insertion <input type="checkbox"/>													
Needle free port <input type="checkbox"/>													
Dressing dated <input type="checkbox"/>													
Day No.	1	2	3	4	5	6	7	8	9	10	11	12	
Site Clean Y/N													
Still req'd Y/N													

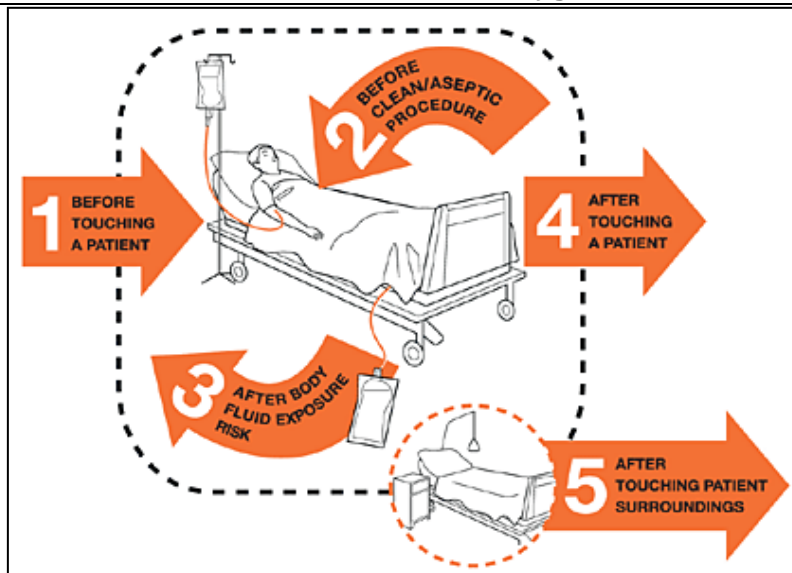
Hand Hygiene

Regular and effective hand hygiene is the single most important task you can do to protect yourself and others from infection. Up to 80% of infectious diseases are transmitted through touch.

We ask that you remain 'Bare below the elbows' in the clinical area and carry out effective hand hygiene at the appropriate times.

Do you know the WHO 5 moments for hand hygiene?

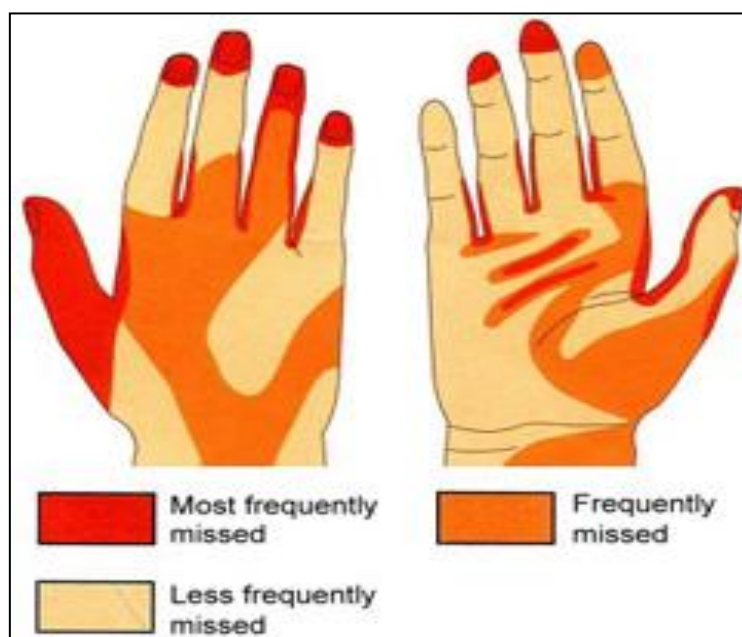
Five moments for hand hygiene



Other important moments to remember;

- Before manipulating or touching any lines, CVC, PVC, PICC etc, administration lines, flush system including transducers.
- Before preparing and administer bolus injections and infusions and decontaminate the smart site with a Chlorhexidine wipe. 'scrub the hub' (min 15 seconds)

Darker red areas are most frequently missed part of the hands when performing hand hygiene



Antimicrobial Stewardship

- Refer to Critical Care [antimicrobial guidelines](#) via the intranet
- Or download the Antimicrobial companion app from the [SAPG website](#)
- Documentation of an indication for antimicrobials and review date/stop date are mandatory
- Document any escalation/de-escalation suggested by Microbiologist in the Trak clinical notes using the following short code **ICUMICRO** (remember to hit the space bar)

Reducing blood culture contamination

It is important to reduce BC contaminants to avoid patients being started on antimicrobial therapy inappropriately or have unnecessary investigations. The aim is for a rate of < 3%

Good aseptic non touch technique (ANTT) prevents blood culture contaminations.

- Always decontaminate skin - before puncture
- Do not re palpate decontaminated skin
- You must clean skin for 30 second and allow to dry for 30 sec

Care bundles have been systematised for procedures in Critical Care by using ready made packs or boxes to make it easier for everyone to do the right thing for every patient every time
Examples: Blood culture packs, PVC packs, CVC Box or pack

Screening

Carbapenemase Producing Enterobacteriaceae (CPE)

All patients are risk assessed on admission and screened if necessary.

- Hospital transfers, patients with a history of hospital admission abroad (include holiday dialysis) within last 12 months or those known to be previously colonised with CPE should be isolated and screened
- Link to Infection Prevention and Control CPE guidelines are on Critical Care Guidelines Intranet site.
- Seek advice from Microbiologists for antimicrobial treatment

MRSA

All patients are risk assessed and screened on admission for MRSA

- MRSA suppression therapy is considered for all MRSA positive patients.
- MRSA guideline on Infection Prevention and Control intranet page
- Check with Microbiologists if Mupirocin resistant

Microbiology Ward Rounds: With a Consultant Microbiologist

- Every day usually in the afternoons. (By telephone Saturday and Sunday)
 - Discuss patient condition, specimens sent, most up to date results
 - Discuss further management
 - Document decisions on trak at time of round

For advice out of office hours & weekends: Microbiology, Virology - On-call via switchboard
Or the Infection Prevention & Control Duty Nurse Daily 0830-1600 inc Weekends Phone 63373

For Urgent Specimens

The appropriate laboratory should be telephoned prior to sending emergency samples and these should be clearly labelled as such. Samples from ED, Admissions Units and Critical Care are prioritised within the laboratory, as long as they are clearly identified.

The [laboratory website](#) is very useful and there is a link to the website from the Antimicrobial Companion app.

Further Information on the Intranet

[Infection Control](#)

[Antibiotics management team](#)

[Occupational health](#)

Infection Surveillance within Critical care

- All patients admitted with LOS > 2 calendar days is audited for certain HAIs Based on the ECDC criteria
- Infections under surveillance
 - Pneumonia
 - Blood stream infections
 - Central venous catheter related blood stream infections



We also look for MRSA acquisition, *Clostridium difficile* infection, *Staphylococcus aureus* bacteraemia and multidrug resistant Gram negative bacteria

Contacts and Information

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