CLINICAL AUDIT

Clinical effectiveness involves a number of processes, but primary among these are:

1. The development or adaptation and use of **clinical guidelines** to support evidence-based practice, and
2. The use of **clinical audit** to improve service user care and outcomes

**Clinical guidelines** are systematically developed statements, based on a thorough evaluation of the evidence, to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances, across the entire clinical spectrum. (Adapted from Field and Lohr (1992))

The term ‘**clinical audit**’ is used to describe a process of assessing clinical practice against standards. The Commission on Patient Safety and Quality Assurance (2008, p.152) defined clinical audit as:

‘a clinically led, quality improvement process that seeks to improve patient care and outcomes though the systematic review of care against explicit criteria and to act to improve care when standards are not met.’

WHY WE AUDIT

Clinical audit offers a way to assess and improve patient care, to uphold professional standards and ‘do the right thing’.

Through clinical audit, healthcare staff may identify and measure areas of risk within their service.

Regular audit activity helps to create a culture of quality improvement in the clinical setting.

Clinical audit is educational for the participants. It involves being up to date with evidence-based practice.

It is increasingly seen as an essential component of professional practice.

It will improve the quality and effectiveness of healthcare.
VERIFYING YOUR AUDIT TOOL

Use an evidence based audit tool (do not reinvent the wheel)
Gather together your auditors
Carry out the same audit using the same audit tool at the same time
Compare your results

CHECKLIST

A checklist is a type of job aid used to reduce failure by compensating for potential limits of human memory and attention.
It helps to ensure consistency and completeness in carrying out a task.
A basic example is the "to do list".
A more advanced checklist would be a schedule which lays out tasks to be done according to time of day or other factors.
A primary task in checklist is documentation of the task and auditing against the documentation
Aviation checklists

<table>
<thead>
<tr>
<th>EQUIPMENT</th>
<th>MINIMUM FREQUENCY</th>
<th>PERSON RESPONSIBLE</th>
<th>HOW TO CLEAN</th>
<th>HOW TO AUDIT</th>
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<tbody>
<tr>
<td>BP MONITORS</td>
<td>1 Full Clean Daily and between patient use. Deep clean weekly</td>
<td>Ward Staff</td>
<td>Clean with Disinfectant wipe daily. Hypochlorite solution 1000ppm weekly</td>
<td>Check equipment and accessories for cleanliness, Check for any damage or wear and tear, Check for any missing parts or accessories</td>
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<td>ECG MACHINES</td>
<td>1 Full Clean Daily and between patient use. Deep clean weekly</td>
<td>Ward Staff</td>
<td>Clean with Disinfectant wipe daily. Hypochlorite solution 1000ppm weekly</td>
<td>Check equipment and accessories for cleanliness, Check for any damage or wear and tear, Check for any missing parts or accessories</td>
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<td>WEIGHING SCALES/BLADDER SCANNER</td>
<td>1 Full Clean Daily and between patient use. Deep clean weekly</td>
<td>Ward Staff</td>
<td>Clean with Disinfectant wipe daily. Hypochlorite solution 1000ppm weekly</td>
<td>Check equipment and accessories for cleanliness, Check for any damage or wear and tear, Check for any missing parts or accessories</td>
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<td>1 Full Clean Daily and between patient use. Deep clean weekly</td>
<td>Ward Staff</td>
<td>Clean with Disinfectant wipe daily. Hypochlorite solution 1000ppm weekly</td>
<td>Check equipment and accessories for cleanliness, Check for any damage or wear and tear, Check for any missing parts or accessories</td>
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<td>FRIDGE</td>
<td>Deep clean weekly</td>
<td>Ward Staff</td>
<td>Clean as per Manufacturers instructions. Rinse thoroughly</td>
<td>Check equipment and accessories for cleanliness, Check for any damage or wear and tear, Check for any missing parts or accessories</td>
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<td>PHYSIO EQUIPMENT</td>
<td>1 Full Clean Daily and between patient use. Deep clean weekly</td>
<td>Physio Staff</td>
<td>Clean with Disinfectant wipe daily. Hypochlorite solution 1000ppm weekly</td>
<td>Check equipment and accessories for cleanliness, Check for any damage or wear and tear, Check for any missing parts or accessories</td>
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<td>DRIP STANDS</td>
<td>1 Full Clean Daily and between patient use. Deep clean weekly</td>
<td>Ward Staff</td>
<td>Clean with Disinfectant wipe daily. Hypochlorite solution 1000ppm weekly</td>
<td>Check equipment and accessories for cleanliness, Check for any damage or wear and tear, Check for any missing parts or accessories</td>
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<td>COMMODES</td>
<td>1 Full Clean Daily and between patient use. Deep clean weekly</td>
<td>Ward Staff</td>
<td>Clean with Sporacidal wipe. Hypochlorite solution 1000ppm weekly</td>
<td>Check equipment and accessories for cleanliness, Check for any damage or wear and tear, Check for any missing parts or accessories</td>
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<tr>
<td>CLINICAL TROLLEYS (DRESSING TROLLEYS etc)</td>
<td>Deep clean weekly</td>
<td>Ward Staff</td>
<td>Clean with Disinfectant wipe</td>
<td>Check equipment and accessories for cleanliness, Check for any damage or wear and tear, Check for any missing parts or accessories</td>
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<td>HOIST</td>
<td>Deep clean weekly</td>
<td>Ward Staff</td>
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The National standards for the prevention and control of healthcare associated infection promote the use of Care bundles.

A Care bundle is a collection of interventions (3-5) that are evidence based. A structured process of applying a small, straightforward set of evidence-based practices — generally three to five.

It has the appearance of a checklist with specific elements that make it unique. Well established best practices, performed uniformly, making treatment and patient outcomes reliable.

A care bundle aims to tie them together into a cohesive unit that must be adhered to for every patient, every time. Care Bundle allows us to measure the % of care that is being managed as per best practice. Corrective actions can be put in place in response to the results.

**Peripheral Vascular Catheter (PVC) Care Bundle**

**Aim:** To Reduce the Incidence of Peripheral Vascular Catheter Related Infection.


**The PVC Bundle**

1. Check the Clinical Indication why the Peripheral Vascular Catheter is in situ. Is it still in use and required?
2. Remove the Peripheral Vascular Catheter where there is redness, inflammation or pain.
3. Check the Peripheral Vascular Catheter dressing is intact. (Use Chlorhexidine gluconate 2% & Alcohol to cleanse)
4. Check there is a record the Peripheral Vascular Catheter insertion site has been visually inspected at least twice daily (on every shift) for evidence of complications (VIP score).
5. Has Hand Hygiene been performed before and after all Peripheral Vascular Catheter maintenance/access procedures?

**Central Vascular Catheter (CVC) Care Bundle**

**Aim:** To Reduce the Incidence of Central Vascular Catheter Related Infection.


**The CVC Bundle**

1. Check the Clinical Indication why the Central Vascular Catheter is in situ. Is it still in use and required?
2. Is the Central Vascular Catheter dressing intact?
3. Has Central Vascular Catheter Hub Decontamination been performed before each hub access? (Chlorhexidine Gluconate 2% & Alcohol)
4. Has Chlorhexidine Gluconate 2% & Alcohol been used for cleaning the Insertion Site during dressing changes? (Chloraprep)
5. Has Hand Hygiene been performed before and after all Central Vascular Catheter maintenance/access procedures?
5 ACTIONS FOR REDUCING CATHETER ASSOCIATED URINARY TRACT INFECTIONS

1. Is the urinary catheter still required?
2. Has the urinary catheter been on continuous drainage?
3. Has daily genital/meatal hygiene been performed?
4. Has a clean container been used to empty the urinary catheter?
5. Did you perform hand hygiene and wear gloves before dealing with the urinary catheter?

Preventing Surgical Site Infections Care Bundle

Key Recommendations for Practice

Pre-Op...
1. Avoid hair removal at the surgical site. If hair must be removed use single patient use clippers and not razors.
2. Wash the patient or make sure that the patient has showered (or bathed/washed if unable to shower) on day of or day before surgery.
3. Use the right drug at the right time for the right duration for antibiotic prophylaxis:
   a. Right drug: Prescribe antibiotic prophylaxis according to Blackrock Clinic antimicrobial prescribing guidelines
   b. Right time: Ensure that the antibiotic is given at induction - Within 60 minutes before skin incision. In surgery where a tourniquet is to be applied, a 15 minute period is required between the end of antibiotic administration and tourniquet application.
   c. Right duration: Single dose only, unless otherwise indicated

Intra-Op...
1. Use 2% chlorhexidine gluconate in 70% isopropyl alcohol solution for skin preparation. If the patient is sensitive or allergic use povidone-iodine.
2. Make sure that:
   a. The patient's body temperature is maintained above 36°C during the perioperative period (Excludes cardiac patients).
   b. The patient's haemoglobin saturation is maintained above 95%, or as high as possible if there is underlying respiratory insufficiency.
   c. If the patient is diabetic, that the glucose level is kept at <11mmol/l throughout the operation.
3. Give an additional dose of antibiotic if the surgical procedure is prolonged or there is major intra-operative blood loss (>1.5 litres in adults or 25ml/kg in children) - otherwise the duration of surgical prophylaxis should be a single dose.
4. Cover the surgical site (wound) with a sterile dressing prior to removal of drapes at the end of surgery.

Post-Op...
1. Do not tamper with or remove the wound dressing for 48 hours post-op unless clinically indicated.
2. Use aseptic (no touch) technique for wound inspection and/or wound dressing changes.
3. Hand Hygiene is mandatory before and after every time the wound is inspected or the dressing is changed.

1. With the exception of a very small number of surgical indications (see supporting documentation), the duration of surgical prophylaxis should be a SINGLE dose.
2. Allow skin to dry thoroughly, avoid pooling of disinfectant and drape patient after skin is dry (see supporting documentation).
3. A supplementary intraoperative antibiotic dose may be warranted in two circumstances:
   a. Blood loss - fluid replacement: Serum antibiotic concentrations are reduced by blood loss and fluid replacement, especially during the first hour of surgery when antibiotic levels are high. In the event of major intraoperative blood loss (>1.5 litres) additional doses of prophylactic antibiotic should be considered after fluid replacement.
   b. Prolonged surgical procedures: Many antibiotics, such as cephalosporins like cefuroxime, are short acting and therefore an additional dose should be administered during the surgery if the procedure lasts longer than 4 hours. The re-dosing time will vary depending upon the half-life of the drug in question, and the patient’s underlying renal and hepatic function.
4. Aseptic (no touch) technique aims to prevent microorganisms on hands, surfaces or equipment being introduced to a surgical site (wound). Use no touch technique with clean or sterile gloves, where appropriate, for any change or removal of surgical site (wound) dressings.

CARE BUNDLES INTRODUCTION

PVC
CVC
UC
SSI
C difficile
Antimicrobial

http://www.ihi.org/resources/Pages/IHIWhitePapers/UsingCoreBundles.aspx
INTRODUCING CARE BUNDLES

Introduce care bundle posters
Documentation of bundles in care pathway or elsewhere
Educate ward managers and nurse specialists initially. These are the drivers!
Carry out education to all other staff
Introduce care bundle audit tool (verify your audit tool with all auditors)
Provide an audit calendar to schedule audits
Reminder emails when audit is due
Feedback compliance report for each ward

INTERACTIVE PIECE

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<th>Ward:</th>
<th>Date:</th>
<th>Name of person performing the bundle audit:</th>
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Observation number: Room number

1. The peripheral vascular catheter is still in use? (Circle correct answer)
   - Yes Continue bundle
   - No Remove catheter

2. Absence of pain, redness, inflammation and or extravasation?
   - Yes Continue bundle
   - No Replace dressing or Remove catheter

3. There is a record that the insertion site has been assessed twice daily?
   - Yes Continue bundle
   - No Replace dressing or Remove catheter

4. The peripheral vascular catheter dressing is intact?
   - Yes Continue bundle
   - No Remove catheter

5. The peripheral vascular catheter is in for less than 72hrs?
   - Yes Continue bundle
   - No Replace dressing or Remove catheter

Peripheral vascular catheter left in situ
Peripheral vascular catheter removed
**OBSERVATION 1/ ROOM 101**

PVC in use
No redness present - VIP score?
Dressing intact
PVC care documented
Date of insertion within 72hrs

Leave in situ
Or
Remove

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**OBSERVATION 2/ ROOM 102**

PVC in use
Redness present - VIP score?
Dressing intact
PVC documented
PVC inserted within the last 72hrs

Leave in situ
Or
Remove

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**OBSERVATION 3/ ROOM 103**

PVC in use
Redness and swelling present - VIP score?
Incorrect dressing in situ
PVC documented
PVC inserted within the last 72 hours

Leave in situ
Or
Remove
OBSERVATION 4/ ROOM 104

PVC in use
No redness present- VIP score
Dressing intact
PVC documented
PVC inserted 96 hours ago

Leave in situ
Or
Remove

OBSERVATION 5/ ROOM 105

PVC not in use
Unable to visualise surrounding skin- VIP score
Incorrect dressing in situ
PVC documented
PVC inserted within the last 72hrs

Leave in situ
Or
Remove

OBSERVATION 6/ ROOM 106

PVC in use
No redness present- VIP score
Dressing not intact
PVC documented
PVC inserted within the last 72hrs

Leave in situ
Or
Remove
OBSERVATION 7/ ROOM 107

PVC not in use
No redness present- VIP score
Dressing intact
PVC documented
PVC inserted within the last 72hrs

Leave insitu
Or
Remove

OBSERVATION 8/ ROOM 108

PVC in use
No redness present- VIP score
Dressing intact
PVC care not documented
PVC inserted within the last 72hrs

Leave insitu
Or
Remove

CARE BUNDLE COMPLIANCE ON WARD . . . .

COMPLIANCE WITH PVC CARE BUNDLE

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COMPLIANCE WITH VAP CARE BUNDLE ICU

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TARGET: To achieve 100% compliance with PVC care bundle

TARGET: To achieve 100% compliance with VAP care bundle ICU
TAKE HOME MESSAGE

Measure patient safety using evidence based practice.