Cost Benefit Analysis of Central lines Antimicrobial Dressing

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3M INS INFUSION NURSES SOCIETY PERSATUAN JURURAWAT INFUSI MALAYSIA

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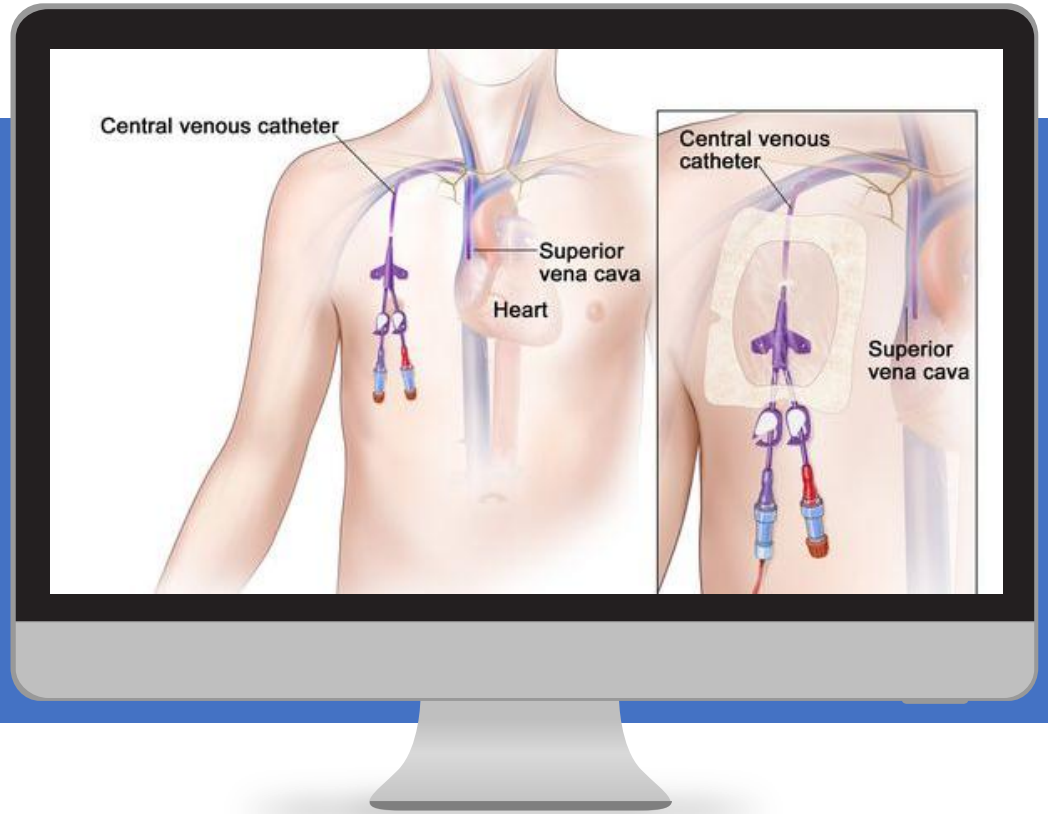
Central Venous Catheter (CVC)

✓Central Venous Catheters (CVC) are essential in everyday medical practice, especially in treating patients in intensive care units (ICU).

✓The application of these catheters is accompanied with the risk of complications, such as the complications caused during the CVC insertion, infections at the location of the insertion, and complications during the use of the catheter, sepsis and other metastatic infections.

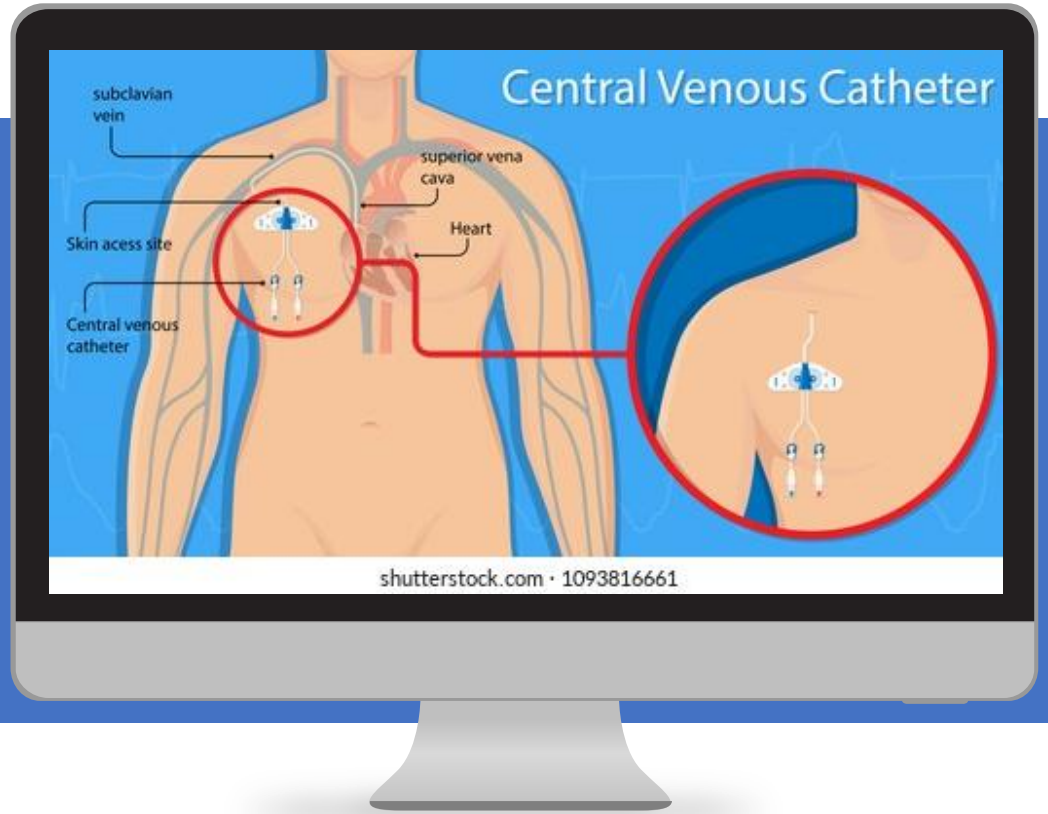


CVC Complications

✓The largest risk factor for catheter colonization is the use of CVC for more than 15 days that lead to CRBSIs.

✓ The measures for preventing the CVC complications are the use of aseptic conditions during CVC insertion, antimicrobial dressing to secure central lines, proper use and maintenance of CVC, removing the CVC as earlier as possible, 15 days before use if possible.

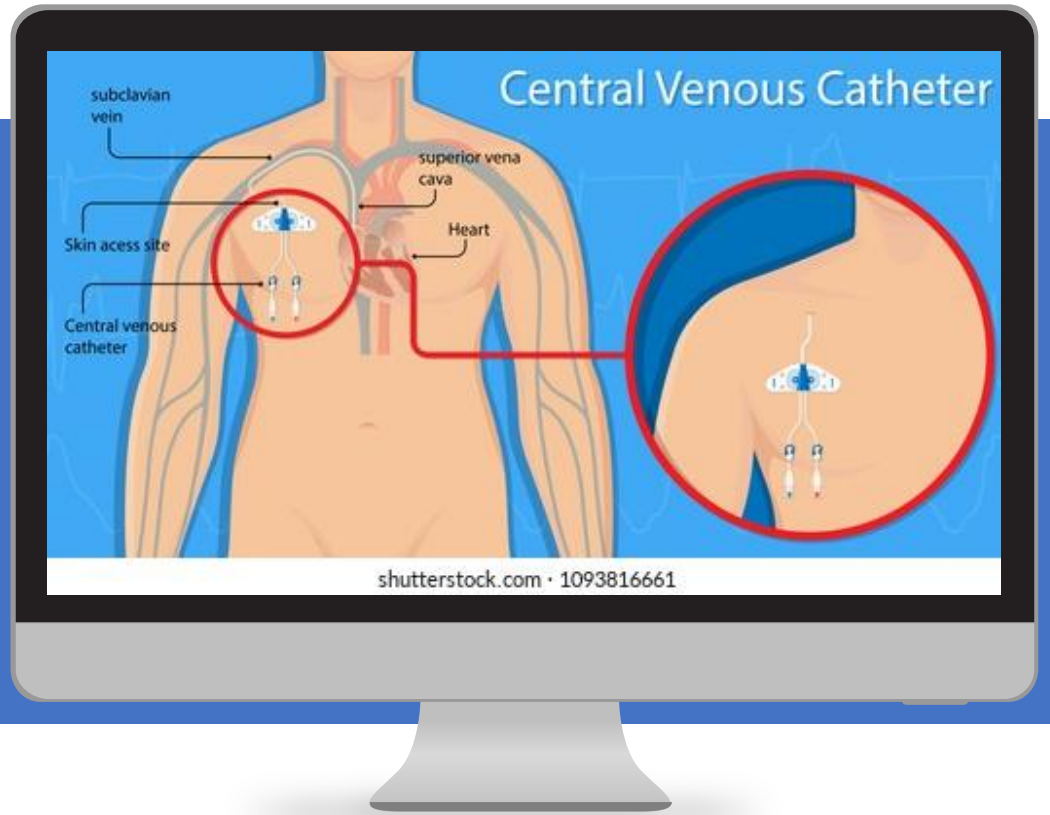
(Hodzic et al. 2014)



CVC Complications

✓Catheter-related bloodstream infections (CRBSIs) are associated with attributable mortality rates of up to 11.5% and additional intensive care unit (ICU) length of stay of up to 12 days.

✓The broadly accepted method for minimizing CRBSIs is a bundle of care combining maximal sterile barrier precautions for insertion, an appropriate antiseptic solution for skin antisepsis and line access, preferential subclavian catheterization, and immediate removal of unnecessary catheters.



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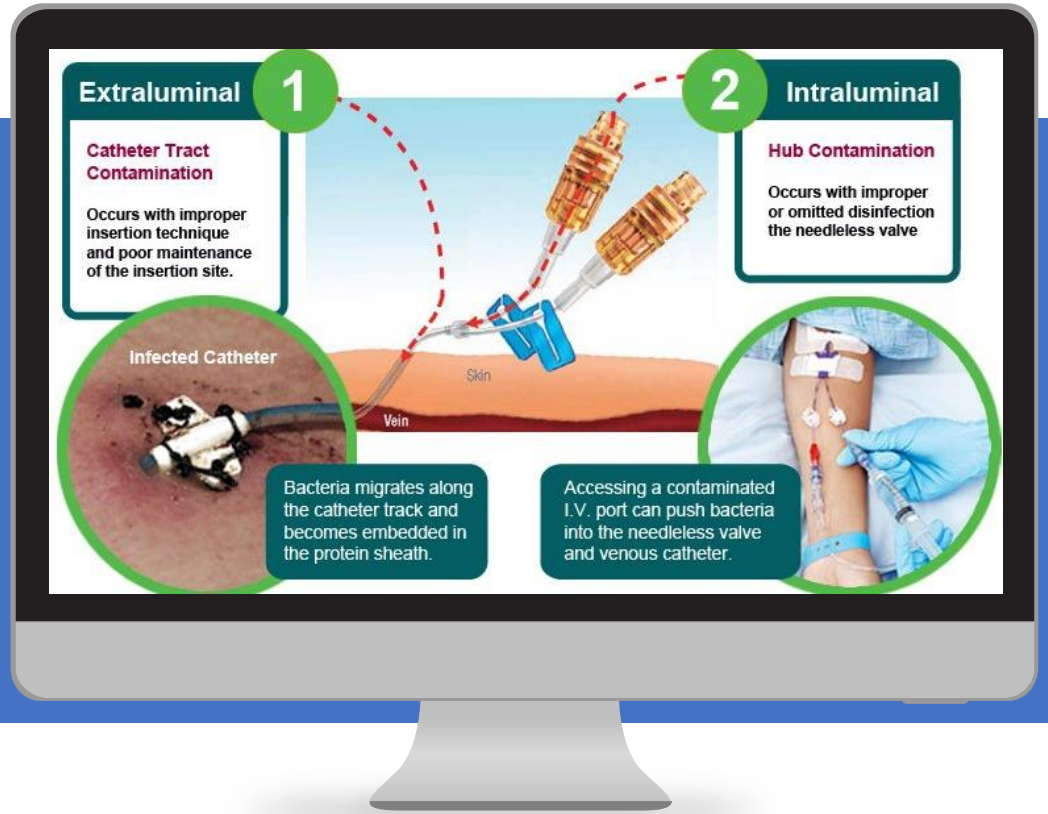
CVC Complications

✓These complications can be immediate or delayed in nature. Immediate complications occur at the time of catheter insertion.

✓Delayed complications include device dysfunction and infection.

✓ Recognition and management of central line complications is important when caring for patients with vascular access, but prevention is the ultimate goal (Kornbau et. Al 2015).



Understanding Bloodstream Infection

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Vascular Access and Bloodstream Infection (BSI)

Risk of BSIs vary and may be due to intrinsic or extrinsic factors:[2-6]	
Catheter-related	▪ Intravascular device ▪ Type of catheter ▪ intended use for the catheter ▪ Insertion site ▪ Frequency of catheter access ▪ Duration of catheter placement
Operator-related	▪ Experience of the individual who inserts the catheter ▪ Use of proven preventative strategies

Patient-related	▪ Characteristics of the patient:
	  ▪ Age
	  ▪ Severity of underlying illness
	  ▪ Patient nutrition
	  ▪ Poor skin integrity
	  ▪ Immunocompromised

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Bloodstream Infection Terminology

- CLABSI
- CRBSI
- PLABSI

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Bloodstream Infection Terminology

Central Line-Associated Bloodstream Infection (CLABSI)

- Term used by the National Health and Safety Network (NHSN) for surveillance purposes to track the incidence of central venous catheter infections
- BSI is a bloodstream infection in a patient with a central line

Catheter-Related Bloodstream Infection (CRBSI)

- Term used for diagnostic purposes and require laboratory confirmation that identifies the catheter as the source of the infection
- Can be challenging because the catheter may not be removed based on patient condition or resources are not available to conduct testing

Peripheral Line-Associated Bloodstream Infection (PLABSI)

- Term defined as the presence of a peripheral line without a central venous catheter and at least on of the following: the presence of phlebitis or resolution of clinical symptoms after withdrawal of the peripheral line, with careful exclusion of an alternative explanation for bacteremia

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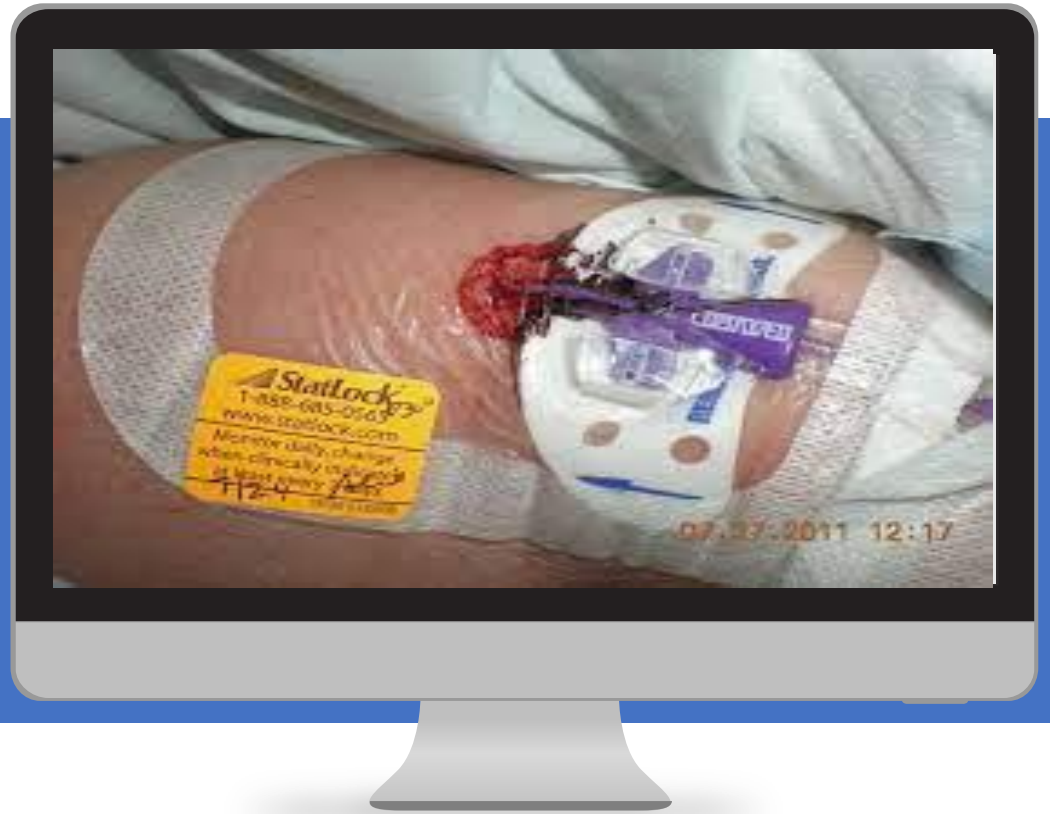
Central Line-Associated Bloodstream Infection (CLABSI)

✓Most organisms responsible for short-term CLABSI originate from the insertion site.

✓It has been previously demonstrated that the risk of developing CLABSI can be dramatically reduced (60% decrease) by the systematic use of a new antimicrobial transparent dressing containing a Chlorhexidine Gluconate (CHG) gel even though bundles of care are appropriately followed and CLABSI level is lower than 1.5 per 1,000 catheter-days in the control group (Maunoury et. al 2015).



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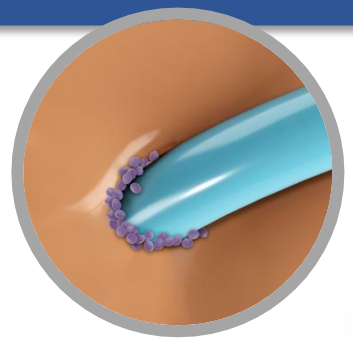
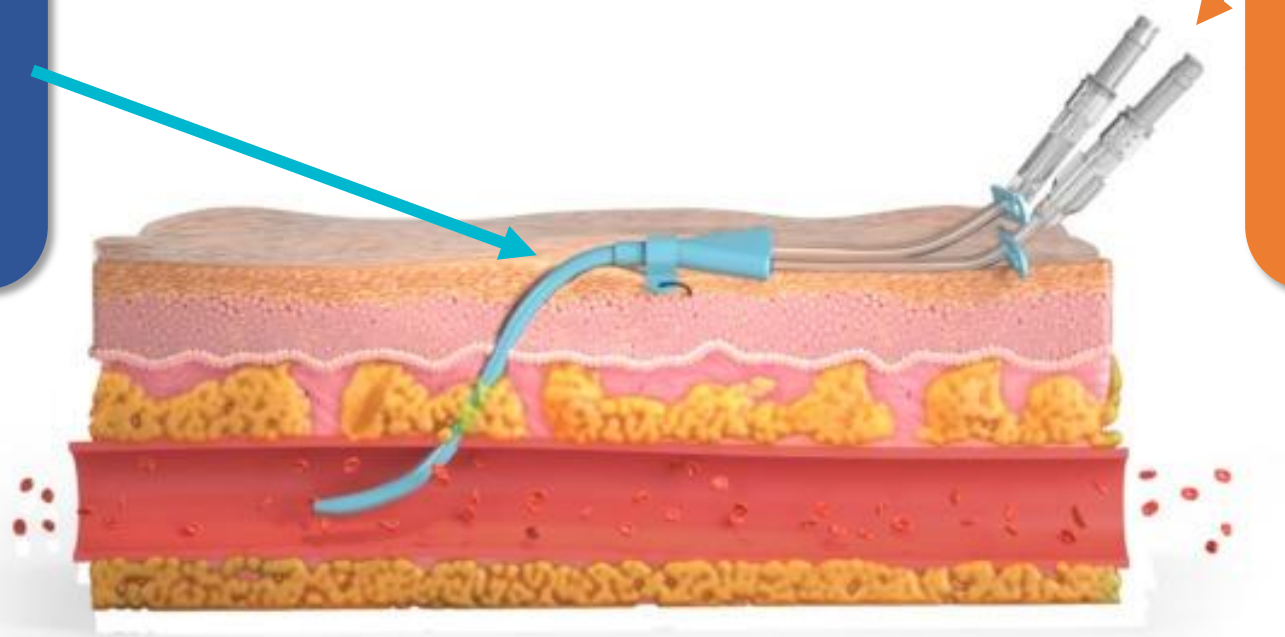
CLABSI organism migration

Organisms on the skin gain access to the bloodstream via migration along the external surface of the catheter or catheter hub; both important routs of catheter-related bloodstream infections[2-6]

Soon after insertion, the **extraluminal route** or insertion site is the predominate source of infection





Whereas the **intraluminal route** (primarily the hub) predominates after a more extended dwell time

The majority of CLABSI emanate from either the insertion site or catheter hub

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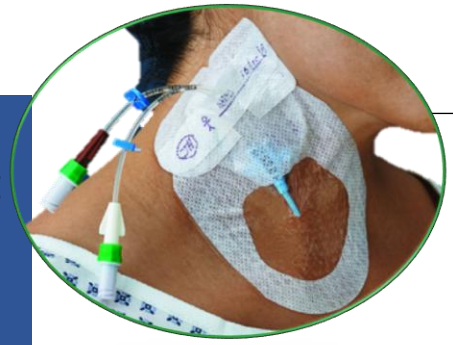
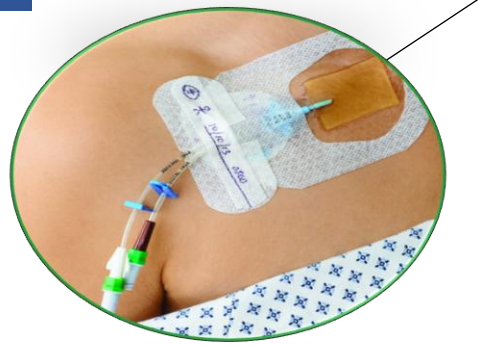
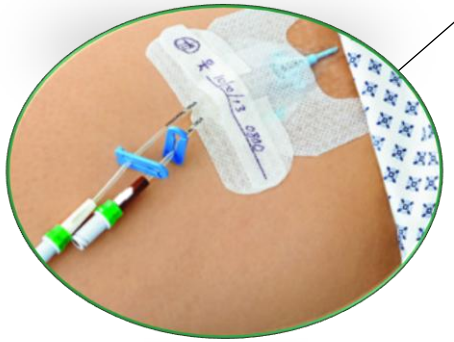
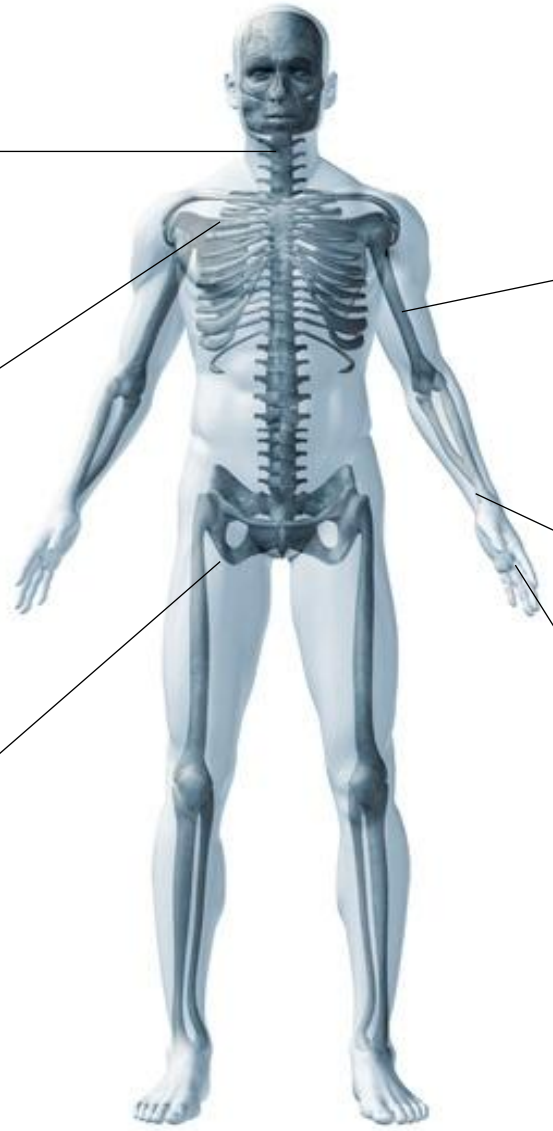
All Vascular Access Devices Are A BSI Risk

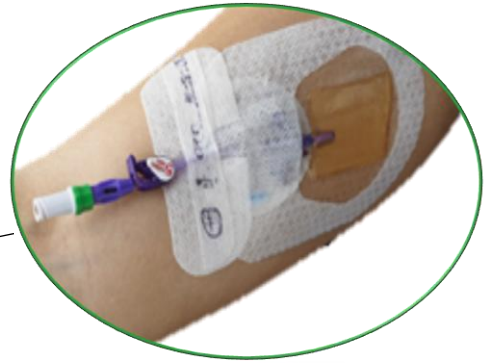
Central venous catheters (CVC): Internal jugular, subclavian, femoral



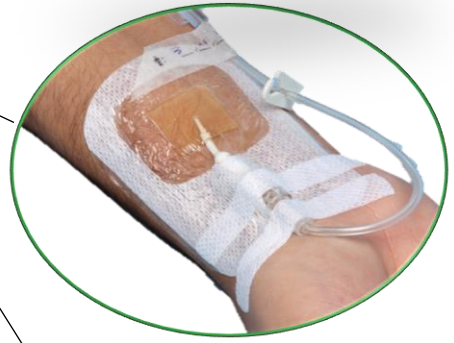








Peripherally inserted central catheter (PICC)



Arterial line catheter (ART)

Peripherally inserted catheter (PIV)

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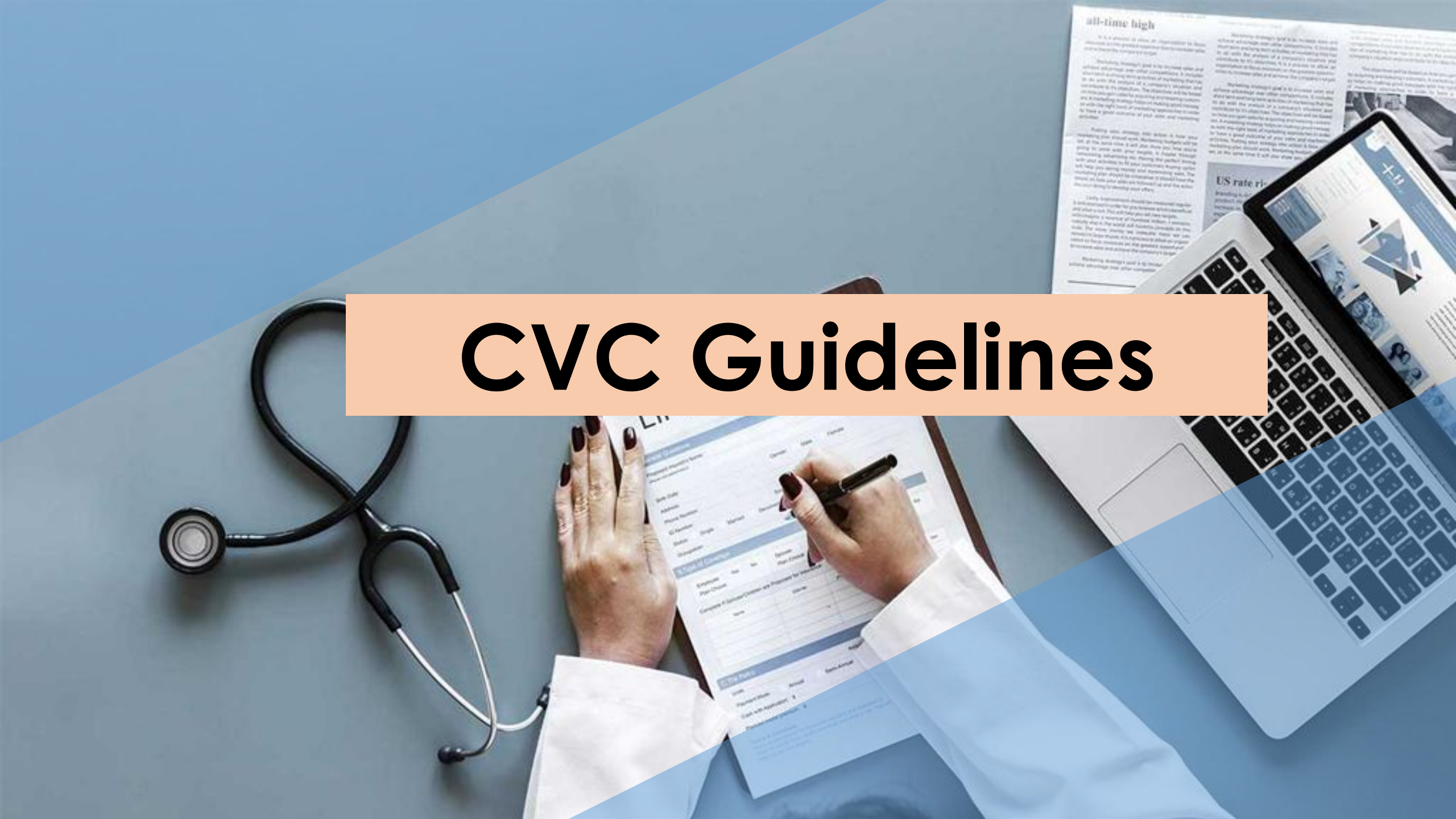

CVC Guidelines

CVC Guidelines

What is the recommended frequency of CVC Dressing?

42. VASCULAR ACCESS DEVICE ASSESSMENT, CARE, AND DRESSING CHANGES

Standard

42.3 Site care, including skin antisepsis and dressing changes, is performed at established intervals and immediately if the dressing integrity becomes compromised (eg, lifted/detached on any border edge or within transparent portion of dressing; visibly soiled; presence of moisture, drainage, or blood) or compromised skin integrity is present under the dressing.

42.4 A sterile dressing, combined or integrated with a securement device appropriate for patient's condition and patient preference, is maintained on all peripheral and central VADs to protect the site, provide a microbial barrier, and promote skin health and VAD securement.

42.5 Aseptic Non Touch Technique (ANTT) is adhered to when providing site care and dressing changes on VADs.

CVC Guidelines

What is the recommended frequency of administration set change for crystalloid fluids?

* 18. Replacement of Administration Sets

1. In patients not receiving blood, blood products or fat emulsions, replace administration sets that are continuously used, including secondary sets and add-on devices, no more frequently than at 96-hour intervals, [177] but at least every 7 days [178–181]. ***Category IA***

CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

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Which skin antisepsis is used for CVC insertion and dressing changes?

Solution	Insertion	Dressing	Insertion & Dressing	Not applicable
Chlorhexidine 1% in 70% Alcohol	24	29	8	39
Chlorhexidine 0.5% in 70% Alcohol	32	19	11	38
Chlorhexidine without Alcohol	19	37	6	38
Povidone Iodine in alcohol	22	36	3	39
70-75% alcohol	34	20	8	38
0.9% sodium chloride	17	35	10	38

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Recommendation for skin antisepsis for CVC insertion and dressing changes.

33. VASCULAR ACCESS SITE PREPARATION AND SKIN ANTISEPSIS

C. Perform skin antisepsis using the preferred skin antiseptic agent of alcohol-based chlorhexidine solution.[5-10] (I)
   1. If there is a contraindication to chlorhexidine solution, an iodophor (eg, povidone-iodine) or 70% alcohol may also be used.[5,6,10] (IV)
   2. Aqueous chlorhexidine may be considered if there is a contraindication to alcohol-based chlorhexidine.[3] (IV)

* 5. Skin Preparation

1. Prepare clean skin with an antiseptic (70% alcohol, tincture of iodine, an iodophor or chlorhexidine gluconate) before peripheral venous catheter insertion [82]. ***Category IB***
2. Prepare clean skin with a >0.5% chlorhexidine preparation with alcohol before central venous catheter and peripheral arterial catheter insertion and during dressing changes. If there is a contraindication to chlorhexidine, tincture of iodine, an iodophor, or 70% alcohol can be used as alternatives [82, 83]. ***Category IA***
3. No comparison has been made between using chlorhexidine preparations with alcohol and povidone-iodine in alcohol to prepare clean skin. ***Unresolved issue***
4. No recommendation can be made for the safety or efficacy of chlorhexidine in infants aged <2 months. ***Unresolved issue***
5. Antiseptics should be allowed to dry according to the manufacturer's recommendation prior to placing the catheter [82, 83]. ***Category IB***

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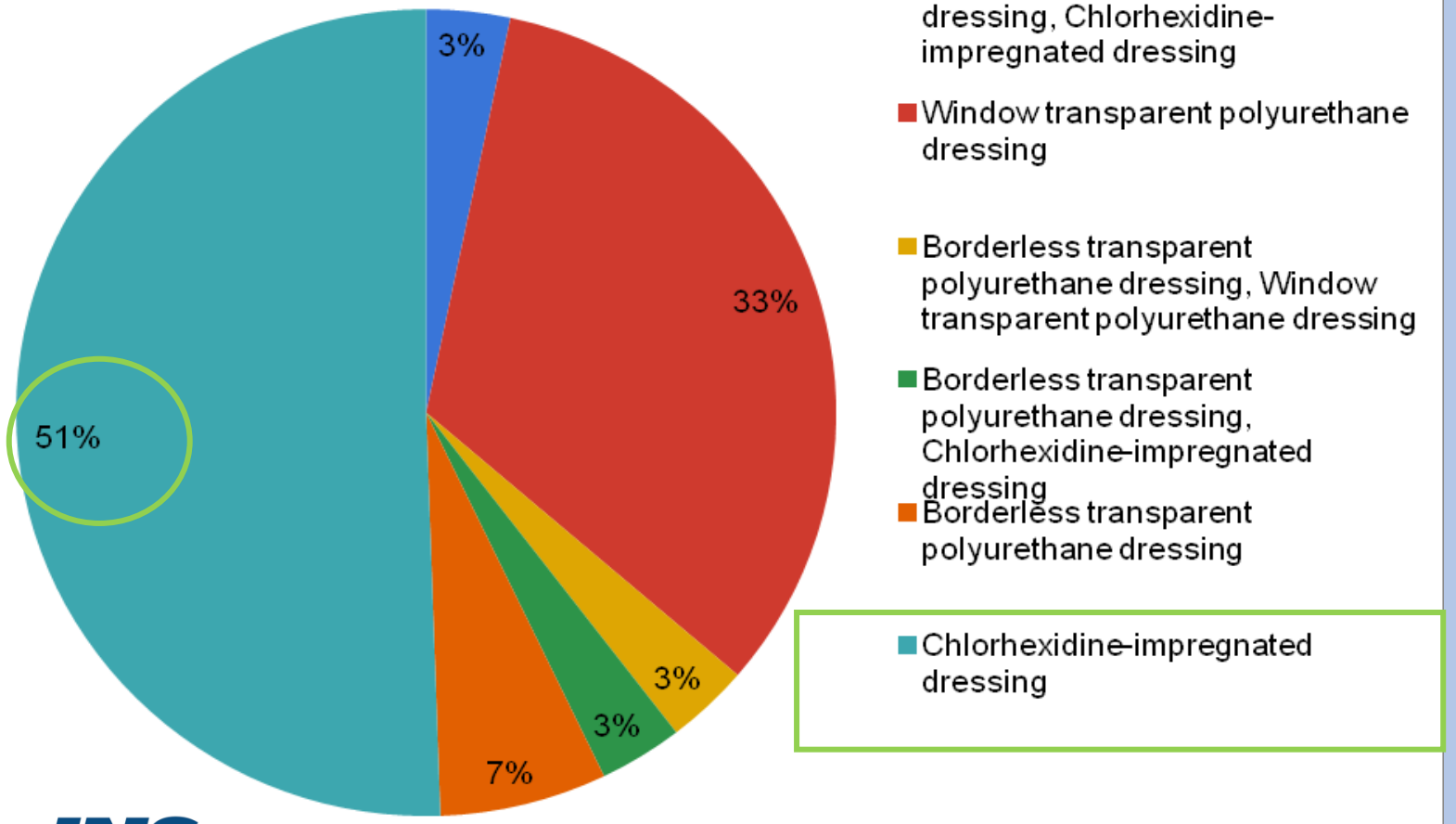
Types of CVC Dressing

Which CVC dressings are used at this hospital? (check all that apply)



Standard

38.1 VADs are secured to prevent complications associated with VAD motion at the insertion site and unintentional loss of access.

38.2 Methods used to secure the VAD do not interfere with the ability to routinely assess and monitor the access site or impede vascular circulation or delivery of the prescribed therapy.

Practice Recommendations

A. Use a securement method (integrated securement device [ISD]; subcutaneous anchor securement system [SASS], tissue adhesive (TA) or adhesive securement device [ASD]), in addition to the primary dressing, to stabilize and secure VADs. Inadequate securement can cause unintentional dislodgement and complications requiring premature removal.

   1. Additional securement as an adjunct to the primary dressing reduces motion at the insertion site and subsequent complications that interrupt necessary infusion therapy; decreases pain, fear, and anxiety related to VAD replacement; and reduces the overall cost of health care.[1-12] (I)

B. Choose the most appropriate method for VAD securement based upon factors including VAD type, patient age, skin turgor and integrity, anticipated duration of therapy, previous adhesive skin injury, and any type of drainage from the insertion site.[1-7] (II)

C. Avoid use of sutures as they are not effective alternatives to a securement method; sutures are associated with needlestick injury, support the growth of biofilm, and increase the risk of CABSI.[6-12] (II)

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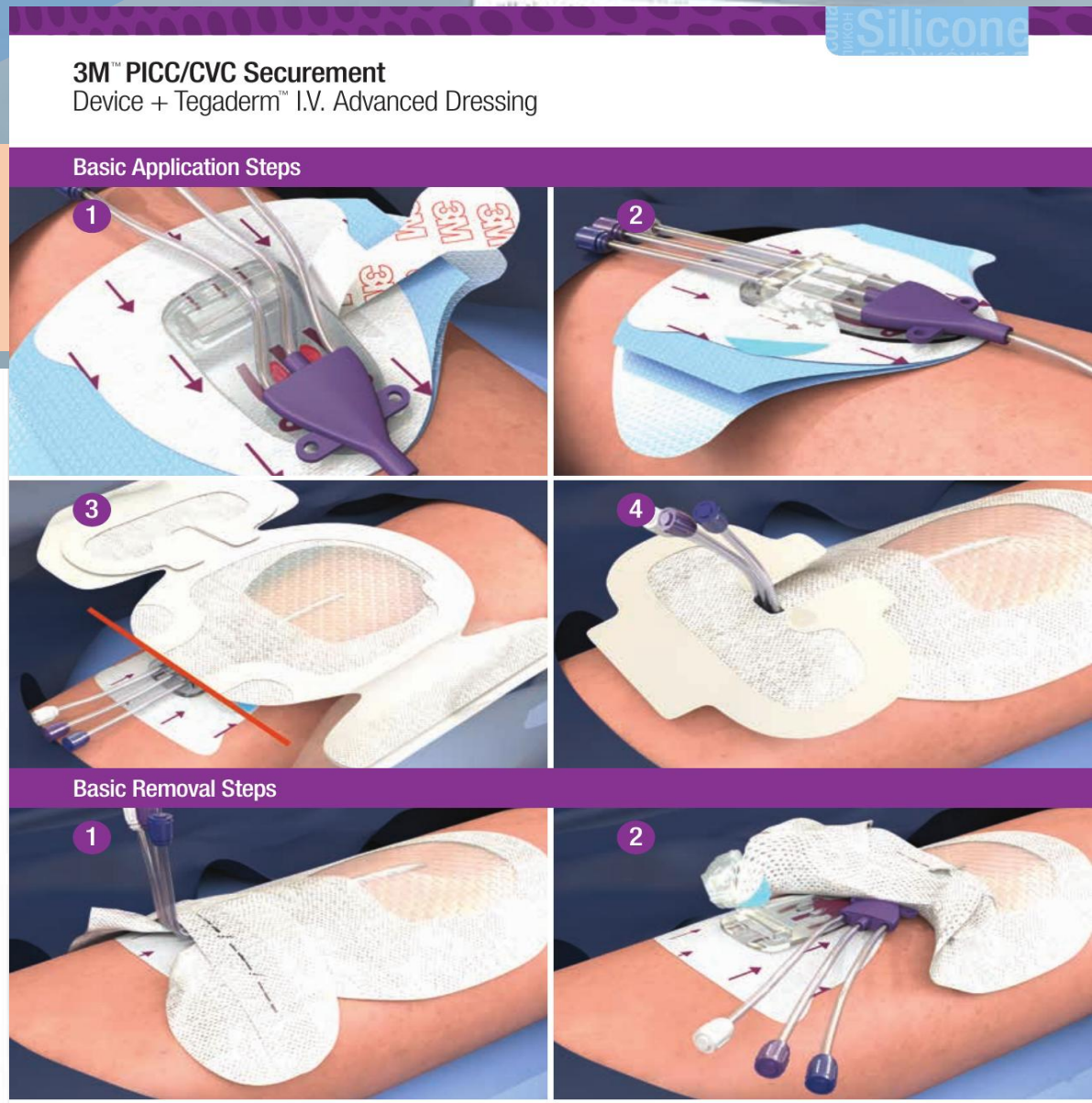
Understanding Antimicrobial Dressing



✓Integrated I.V. dressing combines antimicrobial protection with site visibility and breathability.

✓Proven to suppress regrowth of skin flora for up to 7 days

✓Chlorhexidine gluconate (CHG) is formulated into the dressing adhesive to provide antimicrobial protection without requiring additional moisture to activate.

✓Transparent film allows continuous site visibility to easily assess for early signs of complications.

✓Waterproof, sterile barrier to protect against external contaminants.

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✓Preprinted tape strip designed for documenting dressing changes while providing additional securement Integrated CHG adhesive and easy-to-learn dressing application ensures consistent IV site protection Tegaderm™ Antimicrobial I.V.

✓Advanced Securement Dressing offers antimicrobial protection, site visibility and consistent application for peripheral IVs. It has been proven to suppress regrowth of skin flora on prepped skin for up to 7 days.

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Evidence-based

Cochrane Library

Cochrane Database of Systematic Reviews | Review - Intervention

Dressings and securement devices for central venous catheters (CVC)

Amanda J Ullman, Marie L Cooke, Marion Mitchell, Frances Lin, Karen New, Debbie A Long, Gabor Mihala, Claire M Rickard Authors' declarations of interest

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There is *moderate quality evidence* that CGI dressings reduce the frequency of catheter-related BSI per 1000 patient days compared with SPU dressings (RR 0.51, 95% CI 0.33 to 0.78).

There is *moderate quality evidence* that catheter tip colonisation is reduced with CGI dressings compared with SPU dressings (RR 0.58, 95% CI 0.47 to 0.73), but the relative effects of gauze and tape and SPU are unclear (RR 0.95, 95% CI 0.51 to 1.77, *very low quality evidence*). It is unclear if there is a difference in rates of skin irritation or damage when CGI dressings are compared with SPU dressings (*moderate quality evidence)* (RR 11.17, 95% CI 0.84 to 149.48).

A multiple treatment meta-analysis found sutureless securement devices as likely to be the most effective at reducing the incidence of catheter-related BSI (*low quality evidence*), with CGI dressings ranked second (*low quality evidence*).

Systematic review findings

DESIGN

- Systematic review

OBJECTIVE

- To compare the available dressing and securement devices for CVCs, in terms of catheter-related bloodstream infection (BSI), catheter colonisation, entry- and exit-site infection, skin colonisation, skin irritation, failed catheter securement, dressing condition and mortality.

RESULTS

- 22 studies involving 7436 participants comparing nine different types of securement device or dressing.
- Medication-impregnated dressing products reduce the incidence of catheter-related BSI relative to all other dressing types.
- There is moderate quality evidence that CGI dressings, relative to SPU dressings, reduce catheter-related BSI for the outcomes of frequency of infection per 1000 patient days, risk of catheter tip colonisation and possibly risk of catheter-related BS

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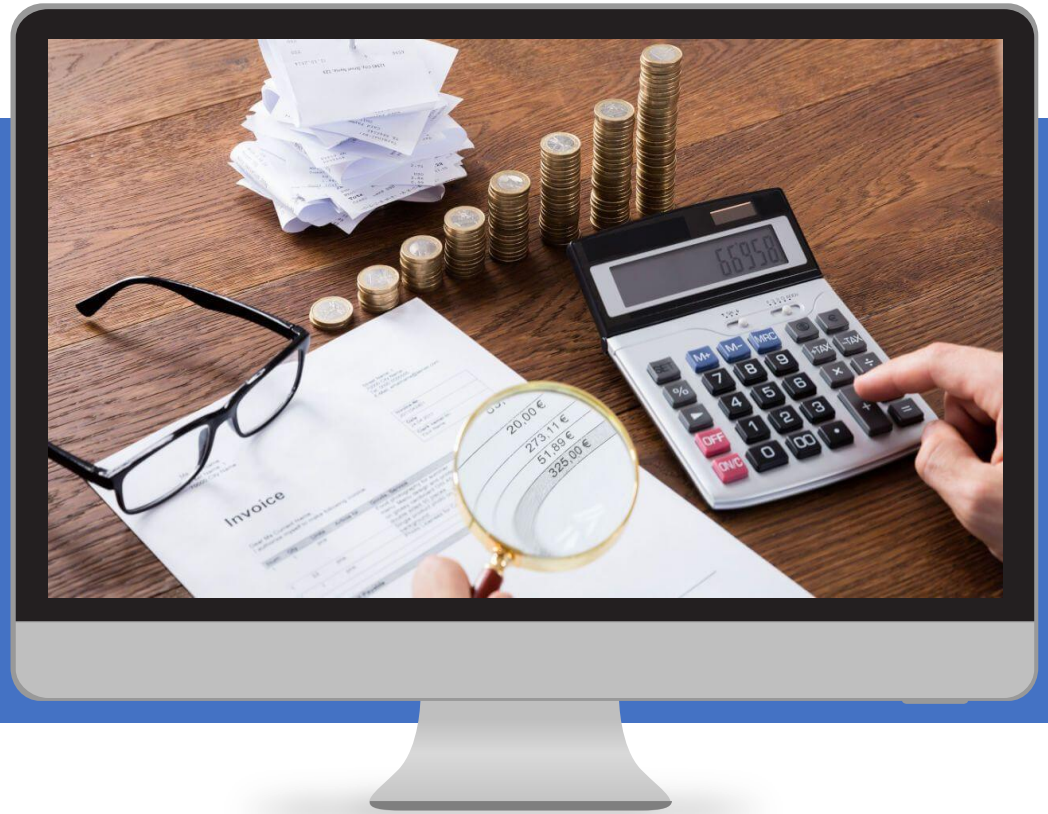
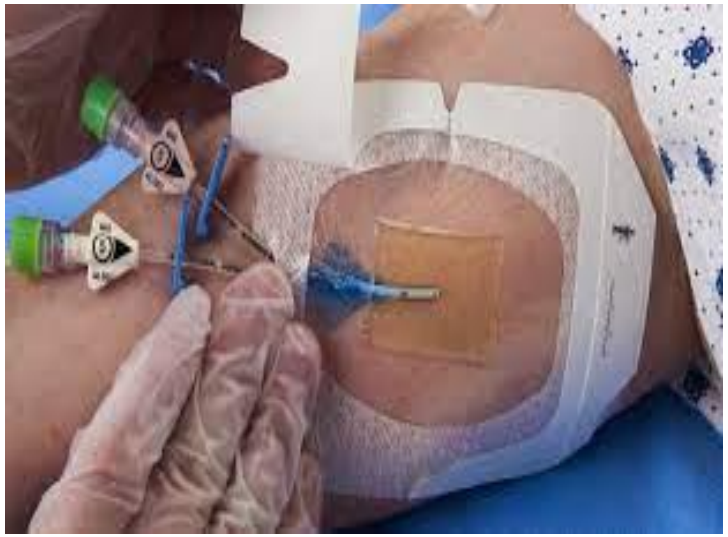
Reasons Why Maintenance is High Maintenance

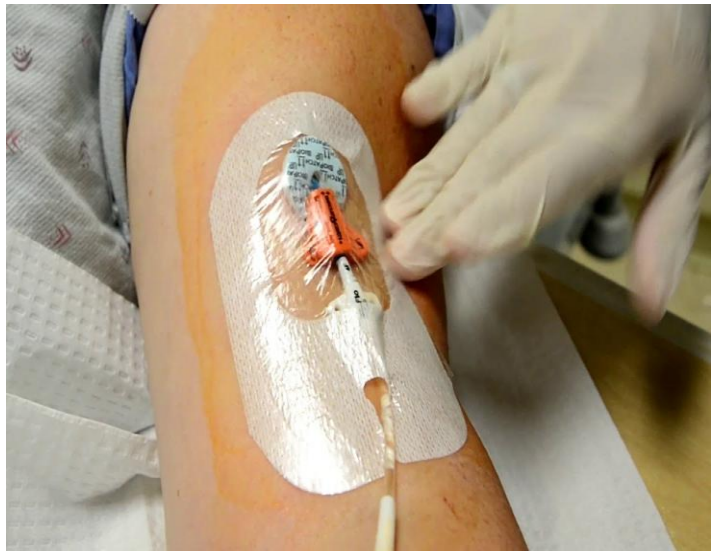


1. Maintenance is for the Life of the Line

Insertion – the procedure represents only one aspect of the risk for CLABSI[1]

Maintenance – the risk of CLABSI extends to all aspects of nursing care and maintenance during the CVC dwell time





The line will be manipulated and accessed by several different people every day

2. Dynamic Bedside Environment

Nurses' work environments are complex, can be fragmented and are multitask driven

Frequency of Interruptions

- Nurses are interrupted as frequently as every 2.3 minutes (26 times per hour)
- Nurses can be interrupted as often as 3 times while trying to complete a task

Percent of Multitasking

- Nurses observed to be multitasking 34% of the time

Sources of Interruptions

- Other healthcare professionals
- Patients and/or families
- Call lights, bed alarms
- Equipment alarms
- Electronic communication devices (phones, pagers)

Understanding Cost Analysis Benefit

Cost Benefit Analysis

✓Cost-benefit analysis is a way to compare the costs and benefits of an intervention, where both are expressed in monetary units.

✓Costs including those of implementing an intervention.

✓Benefits including those resulting from an intervention, such as medical costs averted, productivity gains, and the monetized value of health improvements.

Cost Benefit Analysis

✓**Costs per patient**.

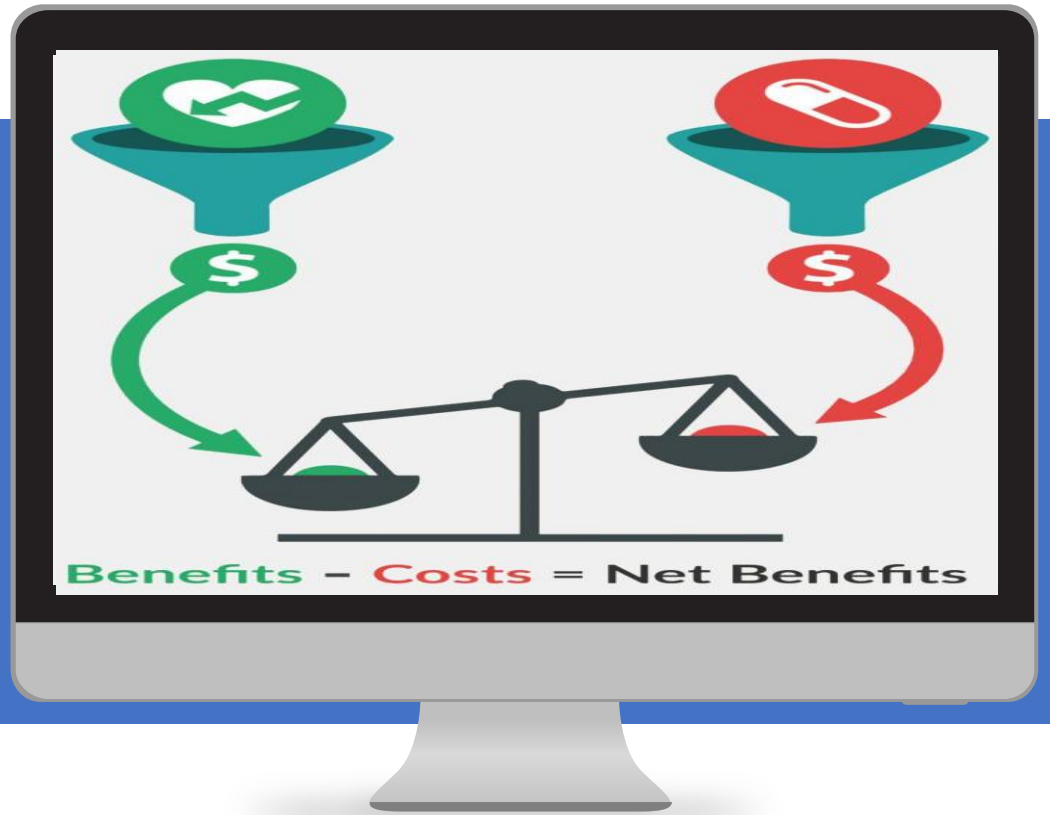
✓ The calculation of the cost per patient was done as follows:

1. Dressing costs (including time needed per dressing, number of nurses involved, and materials used and cost per ICU day.

2. Cost of treating contact dermatitis –(including catheter removal, four alternative dressings, and insertion of a new catheter)

3. Cost of treatment of CRBSI and additional ICU-LOS due to CRBSI

4. Cost per catheter change



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Evidence-based

Studies by Zimlichman et al. 2015 and the nonpartisan and objective research organization (NORC) at the University of Chicago, have produced estimates of the attributable costs of select HAIs that have traditionally been the focus of surveillance and prevention efforts. Adjusting Zimlichman and colleagues' estimates to 2015 dollars (to match the NORC study) using the Bureau of Labor Statistics producer price index for general medical and surgical hospitals. The discussion above illustrates how direct medical cost estimates for HAIs that are derived from literature reviews are sensitive to the methods used to estimate attributable costs.

TABLE 2

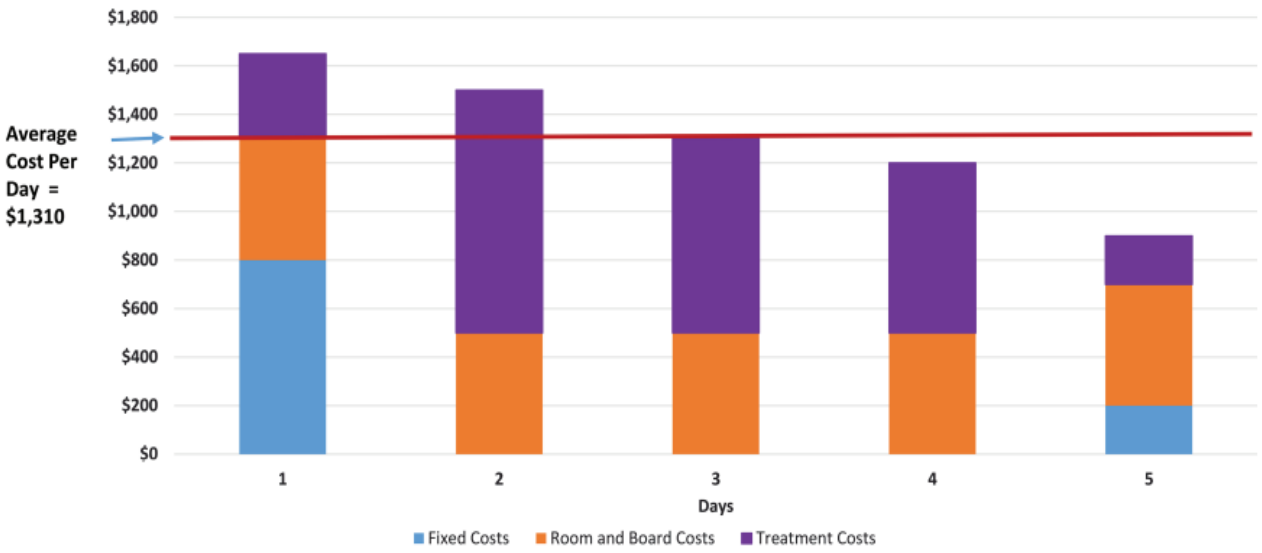
Estimates of Attributable HAI Cost Estimates From Literature Reviews

HAI Type	Zimlichman et al[15]	NORC Report[16]
Catheter-associated urinary tract infections	$924	$13,793
Central line-associated bloodstream infections	$47,254	$48,108
Surgical site infections	$21,438	$28,219
Ventilator-associated pneumonia	$41,406	$47,238
Hospital-acquired antibiotic-associated *Clostridium difficile*	$11,640	$17,260

Abbreviation: HAI, health care-associated infection; NORC, the nonpartisan and objective research organization NORC at the University of Chicago.

Understanding the Economic Impact of Health Care-Associated Infections: A Cost Perspective Analysis

R. Douglas Scott II, PhD • Steven D. Culler, PhD • Kimberly J. Rask, MD, PhD



Data Table

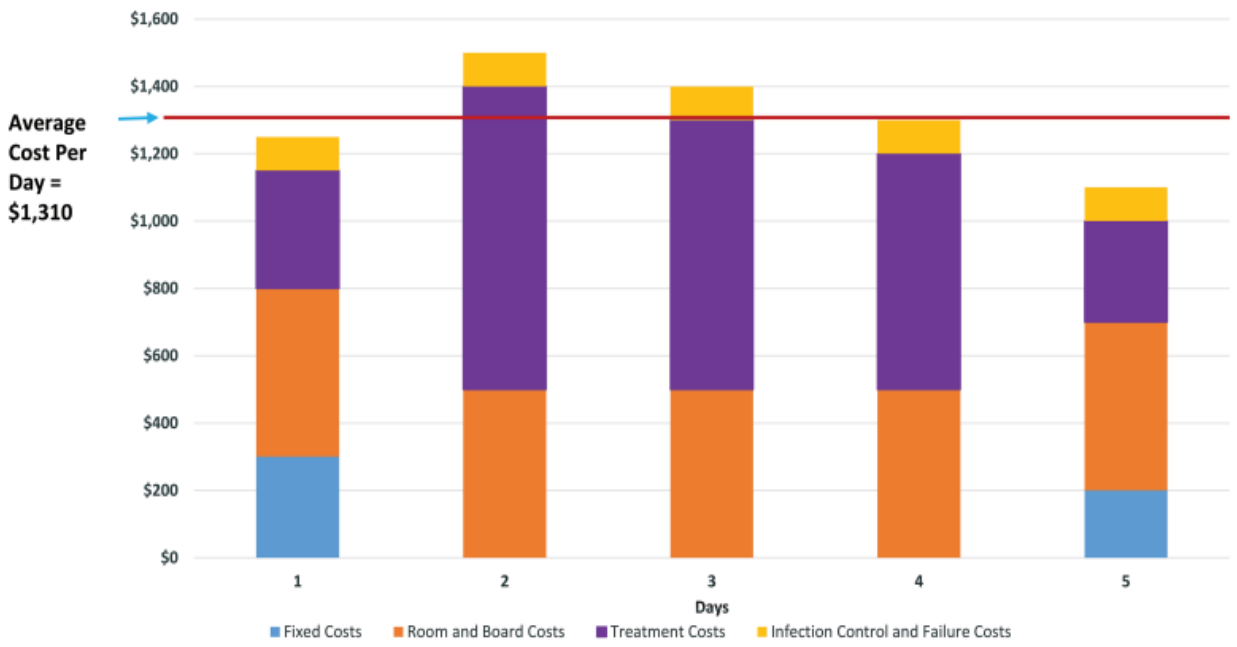
	Days					
Cost Category	**1**	**2**	**3**	**4**	**5**	**Total**
Fixed costs	$800	$0	$0	$0	$200	$1,000
Room and board costs	$500	$500	$500	$500	$500	$2,500
Treatment costs	$350	$1,000	$800	$700	$200	$3,050
Total	**$1,650**	**$1,500**	**$1,300**	**$1,200**	**$900**	**$6,550**

Figure 1 presents a hypothetical distribution of daily hospital costs for patients in the diagnosis-related group (DRG) for those with diabetes and complicating conditions (DRG 638) and an average length of stay of 5 days. Fixed costs (in blue) are charged on day 1 and day 5, including administrative fees (eg, creating a patient's record) and services, such as infection control (for day 1), and discharge fees (day 5); daily hospital room and board costs (orange) and daily treatment costs (purple) vary across the 5 days. Within this DRG patient care. The average daily cost of $1,310 ($6,550/5) is represented by the horizontal line.

The cost-of-quality (CoQ) model is a framework in which all of the resources used to achieve product quality are included, which in this case is quality of care in terms of preventable HAIs. The CoQ model makes explicit that all costs associated with HAI prevention, including infection control programs, hand hygiene protocols, environmental and housekeeping services, and sterilization services, must be counted along with the additional treatment costs of HAIs. The classical model for costing quality is the prevention-appraisal-failure (PAF) model.33-35 The model can be expressed more formally as (1) CoQ = appraisal costs + prevention costs + internal failure costs + external failure costs.

In this model, when an HAI occurs, the total cost is not only the treatment cost of an HAI (internal failure costs) but also the costs associated with appraisal (surveillance and management) and prevention (infection control interventions). Costs associated with insurance premiums and any liability judgments paid by hospitals would also be included (external failure costs).

Hypothetical distribution of daily hospital costs, including infection prevention and failure costs



Data Table

	Days					
Cost Category	**1**	**2**	**3**	**4**	**5**	**Total**
Fixed costs	$300	$0	$0	$0	$200	$500
Room and board costs	$500	$500	$500	$500	$500	$2,500
Treatment costs	$350	$900	$800	$700	$300	$3,050
Infection prevention and failure costs	$100	$100	$100	$100	$100	$500
Total	**$1,250**	**$1,500**	**$1,400**	**$1,300**	**$1,100**	**$6,550**

Figure 2 Hypothetical distribution of daily hospital costs, including infection prevention and failure costs.

The costs of infection prevention activities plus failure costs are explicitly accounted for on a daily basis (in yellow).

For day 1, fixed costs are now reduced by $500 because the costs related to infection control are now allocated on a per day basis ($100) across the 5 days.

Accounting system to assess how increasing investments in infection control can produce savings through reduced treatment costs and hospital room and board costs.

Authors' Conclusion

Given the current structure of health care markets, the societal economic benefits of reducing HAIs are not reflected in the cost and resource allocation decisions facing hospitals. Using the CoQ model can help hospitals incorporate more of the costs incurred by patients that are not currently accounted for by traditional hospital accounting methods. The model also makes it explicit that when an HAI occurs, the cost to the hospital includes not only the costs of treatment but also the costs of prevention and surveillance efforts. To minimize costs, hospital administrators should strive to avert HAIs, but do so using prevention resources as efficiently as possible.

Understanding the Economic Impact of Health Care-Associated Infections: A Cost Perspective Analysis

R. Douglas Scott II, PhD • Steven D. Culler, PhD • Kimberly J. Rask, MD, PhD

ABSTRACT

The economic impacts from preventing health care-associated infections (HAIs) can differ for patients, health care providers, third-party payers, and all of society. Previous studies from the provider perspective have estimated an economic burden of approximately $10 billion annually for HAIs. The impact of using a societal cost perspective has been illustrated by modifying a previously published analysis to include the economic value of mortality risk reductions. The resulting costs to society from HAIs exceed $200 billion annually. This article describes an alternative hospital accounting framework outlining the cost of a quality model which can better incorporate the broader societal cost of HAIs into the provider perspective.

Key words: health care-associated infections, health care cost, regulatory impact analysis, value of statistical life

easuring the cost of health care-associated infec- evidence on cost of HAI infection control and prevention

Cost effectiveness study results

- **DESIGN**
  - Randomized controlled trial
- **INTERVENTION**
  - 1,879 adults expected to require intravascular catheterization for 48 hours.
  - Chlorhexidine Gluconate-containing securement dressing compared to non-antimicrobial transparent dressings.
- **RESULTS**
  - The chlorhexidine gluconate dressing prevents 11.8 infections /1,000 patients (95% confidence interval: [3.85; 19.64]) with a number needed to treat of 85 patients.
  - The incremental cost-effectiveness ratio is of €12,046 per catheter-related bloodstream infection prevented, and the incremental net monetary benefit per patient is of €344.88.

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Cost-Effectiveness Analysis of a Transparent Antimicrobial Dressing for Managing Central Venous and Arterial Catheters in Intensive Care Units

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Table 4. Mean Cost for one patient in each dressing group.

Groups /Statistics	Mean	Lower 95%CI	Upper 95%CI
ALL PATIENTS			
CHG (1)	€16,461	€15,659	€17,265
Non-CHG (2)	€16,	€15,538	€17,103
Diff. Cost (1–2)	€141	€-975	€1,258
PATIENTS with CRBSI in ICU			
CHG (1)	€39,071	€17,384	€60,758
Non-CHG (2)	€41,424	€36,213	€46,635
Diff. Cost (1–2)	[illegible]	[illegible]	€20,277
PATIENTS without CRBSI			
CHG (1)	€16,385	€15,584	€17,186
Non-CHG (2)	€15,946	€15,177	€16,715
Diff. Cost (1–2)	€439	€-664	€1,542

Time Horizon: 30-days ICU—1,000 NH-MCMC simulations of 1,000 patients (€2013).
CHG: Chlorhexidine Gluconate; CI: Confidence Interval; ICU: Intensive Care Unit; NH-MCMC: Non-Homogeneous Markov-Chain Monte Carlo simulation

doi:10.1371/journal.pone.0130439.t004

3M INS INFUSION NURSES SOCIETY PERSATUAN JURURAWAT INFUSI MALAYSIA

Evidence-based

RESEARCH ARTICLE

Cost-Effectiveness Analysis of a Transparent Antimicrobial Dressing for Managing Central Venous and Arterial Catheters in Intensive Care Units

Franck Maunoury[1☯]*, Anastasiia Motrunich[1☯], Maria Palka-Santini[2☯], Stéphanie F. Bernatchez[3], Stéphane Ruckly[4], Jean-François Timsit[4,5,6]

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Results

The chlorhexidine gluconate dressing prevents 11.8 infections /1,000 patients (95% confidence interval: [3.85; 19.64]) with a number needed to treat of 85 patients. The mean cost difference per patient of €141 is not statistically significant (95% confidence interval: [€-975; €1,258]). The incremental cost-effectiveness ratio is of €12,046 per catheter-related blood-stream infection prevented, and the incremental net monetary benefit per patient is of €344.88.

Conclusions

According to the base case scenario, the chlorhexidine gluconate dressing is more cost-effective than the reference dressing.

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Base case input parameters considered in the cost analysis.

1. • Dressing costs per day: CHG dressing, €3.59; non-antimicrobial transparent film, €0.18;
   • gauze and tape, €0.06.
2. • Cost of treating contact dermatitis (mean/episode): catheter removal, €23.62; four gauze and tape dressings, €0.24; catheter insertion, €94.87. Note that the skin lesions themselves healed spontaneously upon removal of the transparent dressings, without further negative health impact or treatment costs.
3. • Direct cost of treating CRBSI (mean/episode): €580.26.
   • Cost per ICU: €1,265.93 per day
4. • Additional ICU Length of stay (LOS) due to CRBSI: 9.33 days (NH-MCMC calculation).
5. • Cost of added ICU LOS due to CRBSI: €11,811.13 (NH-MCMC calculation).

   •• Cost per catheter change (venous + arterial: 50%-50%): €94.97.
6. • Overall cost of one CRBSI (direct cost of treating one CRBSI plus cost of additional ICU LOS due to CRBSI): €12,391.40 (calculation).

Sources: Listed in notes.

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ICU LOS due to CRBSIs and comparability of patients' subgroups with or without CRBSIs (Costs per Markov state per patient).

1. Dressing costs (including time needed per dressing, number of nurses involved, and materials used and cost per ICU day.
2. Cost of treating contact dermatitis –(including catheter removal, four alternative dressings, and insertion of a new catheter).
3. Cost of treatment of CRBSI and additional ICU-LOS due to CRBSI
4. Cost per catheter change

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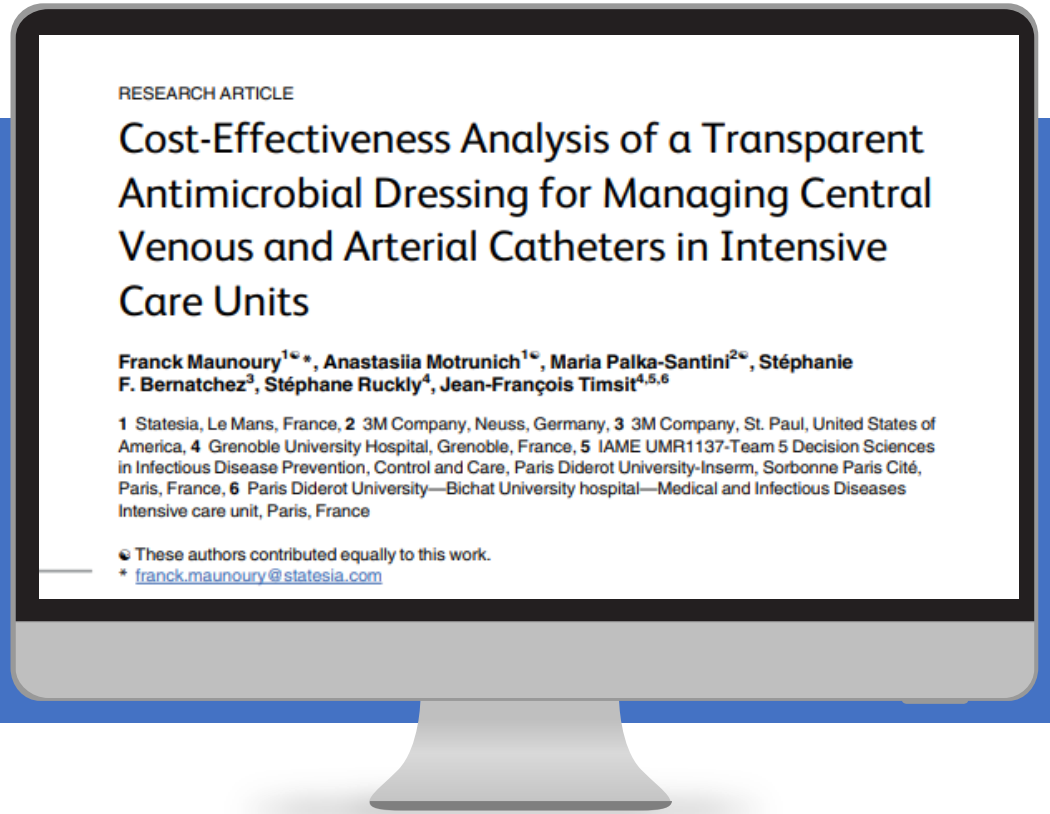
Authors' Conclusion

International guidelines for prevention of catheter-related infections were followed in all study centers participating in the source RCT and the rate of infection was low also in the control group. Furthermore, there was no difference between treatment groups in the covariates (see Table 2). Some studies have shown an increase in infection rate for the femoral insertion site, but this was not observed in our source study (see electronic supplement in [13]).

According to the probabilistic sensitivity analysis, which addresses the level of uncertainty of the results, the CHG-dressing strategy passed the test for cost-effectiveness even in the conservative scenario of very low CRBSI incidence and frequent dressing changes. The transparent antimicrobial dressing is significantly more efficacious to prevent CRBSIs when compared to the reference dressing without any additional cost for the ICU.

This study also has the non-technical limitation of being sponsored by industry (the 3M Company). However, an external research organization (Statesia) was hired to handle independently the development of the simulation model and the data analysis to remove any possible bias. Two employees of the 3M Company worked alongside with non-3M authors for the preparation of the manuscript, with the final version being approved by all non-3M authors prior to submission.



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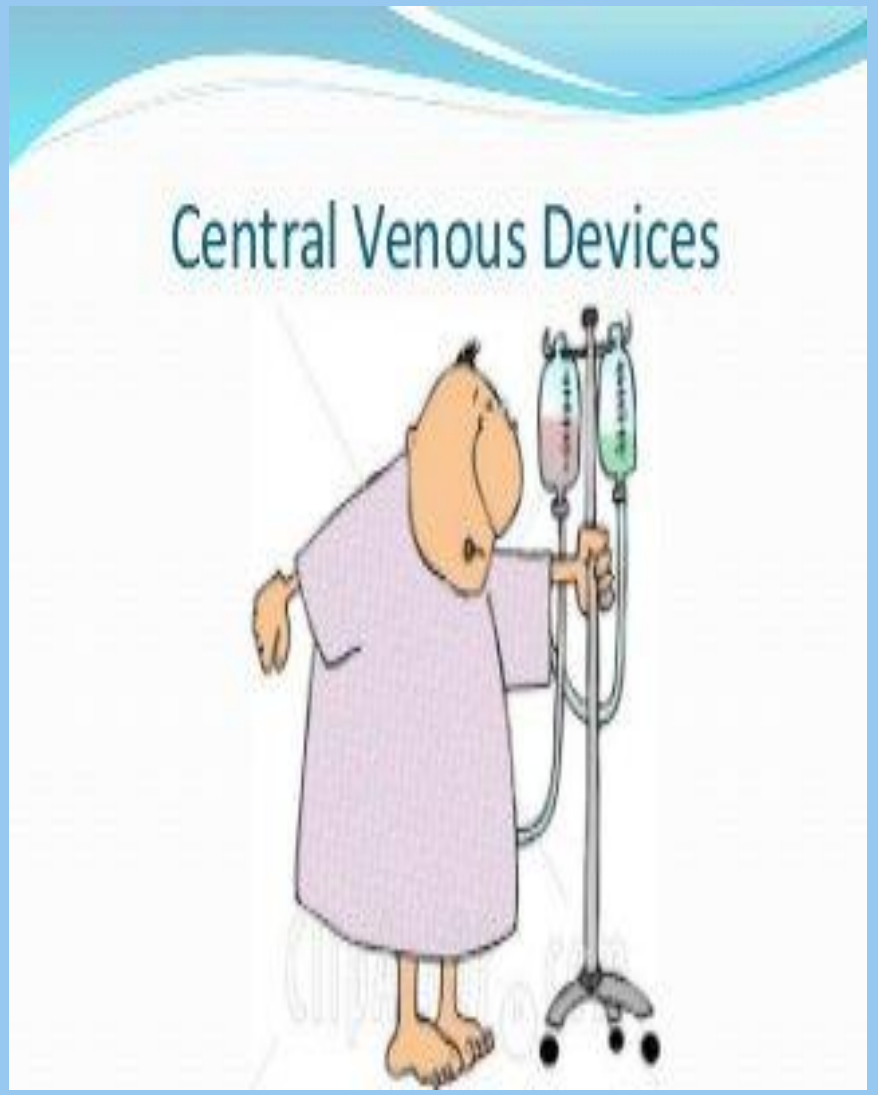

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Certificate of Appreciation

DR. AZLINA BINTI DAUD

for being a speaker during the

3M IV Leadership Summit
"Health Economic Evaluation In Infusion Therapy Management"
15th July 2022
Pullman Hotel KLCC

Gary Lai

Mr. Gary Lai
3M Country Sales Leader
Health Care Business Group

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Day 1 Agenda (15th July 2022)

Time	Topic	Speaker
11:00a.m. – 11:15a.m.	Opening Speech	Mr. Gary, Lai Country Sales Leader 3M Health Care Business Group
11:15a.m. – 11:30a.m.	Program Introduction	Ms. Kerinjeet Kaur Scientific Affair and Education 3M Medical Solutions Division
11:30a.m. – 12:15p.m.	Health Technology Review	Dr. Jeya Devi Coomarasamy President of Malaysian Infusion Nursing Society (INS)
12:15p.m. – 1:00p.m.	Cost Benefit Analysis of Central Lines Antimicrobial Dressing	Assoc Prof Dr. Azlina Daud Senior Lecturer at International Islamic University Malaysia Department of Medical Surgical Nursing, Kulliyyah of Nursing, IIUM Kuantan
1:00p.m. – 2:00p.m.	Lunch	
2:00p.m. – 3:00p.m.	Introduction to Economic Evaluation in Health Care	Associate Prof Dr. Azimatun Noor Bt Aizuddin Senior Medicare Lecturer & Public Health Consultant Department of Community Health, Faculty of Medicine, UKMMC Head of international Casemix & Clinical Coding, Hospital Canselor Tuanku Muhriz UKM
3:00p.m. – 3:30p.m.	Q&A	
3:30p.m. – 4:00p.m.	3M Product Demo	3M Sales Team

Join us for 3M IV Leadership Summit 2022:

Health Economic Evaluation In Infusion Therapy Management

Program Content:

Economic evaluation has received unprecedented attention in the last few decades. Therefore, healthcare organizations, both public and private are required to take economic considerations when making policy decisions. One of the tools in economic evaluation is cost-benefit analysis (CBA). CBA places a monetary value on health outcomes so that both costs and resulting benefits (health outcomes and others) are in monetary units (such as Malaysian ringgit) for informed decisions. For example, a CBA should be addressed when requesting for services such as infusion teams or purchasing medical devices such as passive disinfection caps.

Learning objectives:

1. Identify the concept of health economic evaluation.
2. Discuss the advantages and limitations of cost-benefit analysis.
3. Evaluate, interpret and use the results of cost-benefit analysis to influence policy decisions.
4. Identify and practice a cost-benefit analysis when requesting for services or purchasing medical devices in infusion therapy management.

15- 16 Jul 2022

11:00-16:00 (GMT+8)

Pullman Hotel, KLCC

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