Southampton





Preventing catheter-associated urinary tract infection (CAUTI)

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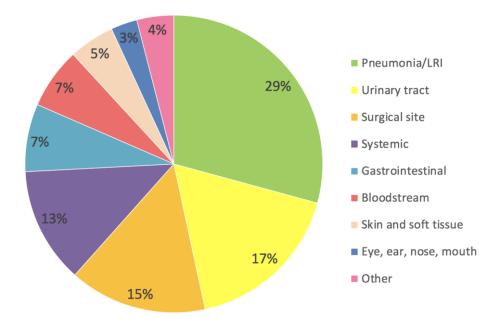


Session aims:

- Provide a brief overview of CAUTI as a clinical problem
- Summarise evidence for key infection prevention practices to reduce CAUTI
- Consider how to implement improvements to support best practice and promote safer care

Prevalence of healthcare-associated infections in England

Point prevalence survey in acute care hospitals in England, 2016 ESPAUR Report 2017, Public Health England Part of the European-wide (ECDC) point prevalence survey in 2016



CAUTI as a clinical priority:

- UTI second most common infection
- 37% secondary bloodstream infections originated from UTI (most common source)
- 45% UTI found in patients with a urinary catheter (within 7 days of infection)
- CAUTI accounted for 47% of all device-related infections

Urinary catheter complications

Meddings et al. BMJ Quality & Safety 2019; 28:56-66

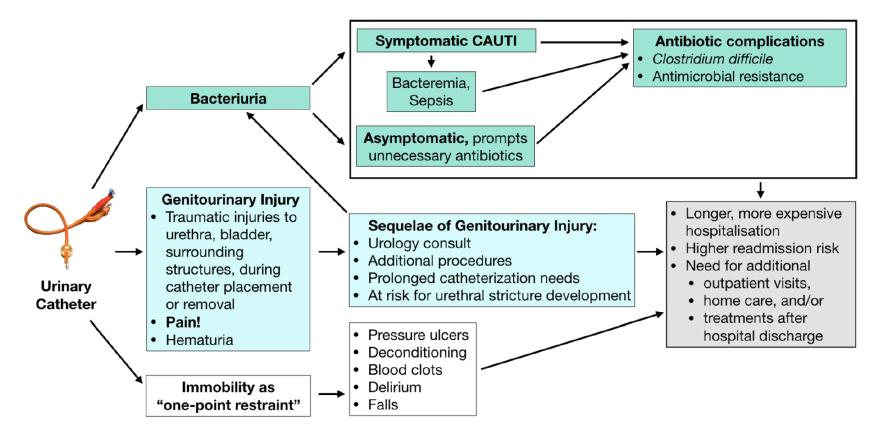


Figure 1 Infectious and non-infectious urinary catheter complications. CAUTI, catheter-associated urinary tract infection.

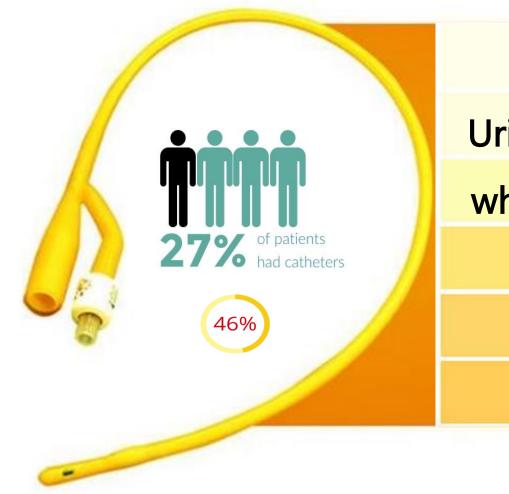
Summary of best evidence-based practice to prevent CAUTI

Avoid unnecessary use	 Assess patient using non-invasive methods (e.g. bladder scan) Assess alternatives to indwelling catheter and discuss with patient Insert indwelling catheter only when clinically indicated 		
Aseptic insertion	 Ensure person undertaking procedure is trained/competent Use aseptic technique and sterile equipment Use appropriate antiseptic or sterile solution for periurethral cleaning and sterile lubricant for insertion Use smallest gauge catheter to minimise trauma Document date/reason for catheter insertion, type of catheter/ drainage system, expected duration/planned date of removal 	Recommendations from best practice guidelines based on systematic review of evidence: • Epic3 (Loveday et al., 2014)	
Catheter maintenance and documentation	 Maintain closed drainage system Routine hygiene (cleansing of meatal surface) Maintain unobstructed urine flow - position drainage system correctly and empty bag regularly using clean container Use standard precautions when handling catheter/drainage system Secure catheter to prevent movement and urethral traction Maintain accurate documentation 	 EAUN (Geng et al., 2014) EAUN (Geng et al., 2012) NICE CG139 (2017) SHEA/IDSA (Lo et al., 2014) CDC HICPAC (Gould et al., 2019) 	
Daily review and timely removal	 Review reason for catheter use daily and plan for catheter removal Undertake pre-removal checks (e.g. bowels, hydration) Assess bladder function following catheter removal 		
Clear plan on patient transfer or discharge	 Provide active management plan with reason for catheter and date for review or removal Ensure appropriate referrals (e.g. urology, continence advisor) Provide information and education for patients and carers 	 Epic3 (Loveday et al., 2014) NICE CG139 (2017) 	

Assessing the need for catheterisation: practical strategies for prevention



- Protocols to restrict use of catheters
- Facilitating use of alternatives to urethral catheterisation
- Use of bladder ultrasound scanners to assess urinary retention
- Use of intermittent (straight) catheterisation to manage urinary retention



Urine output: how and why is it monitored in acute medical environments?



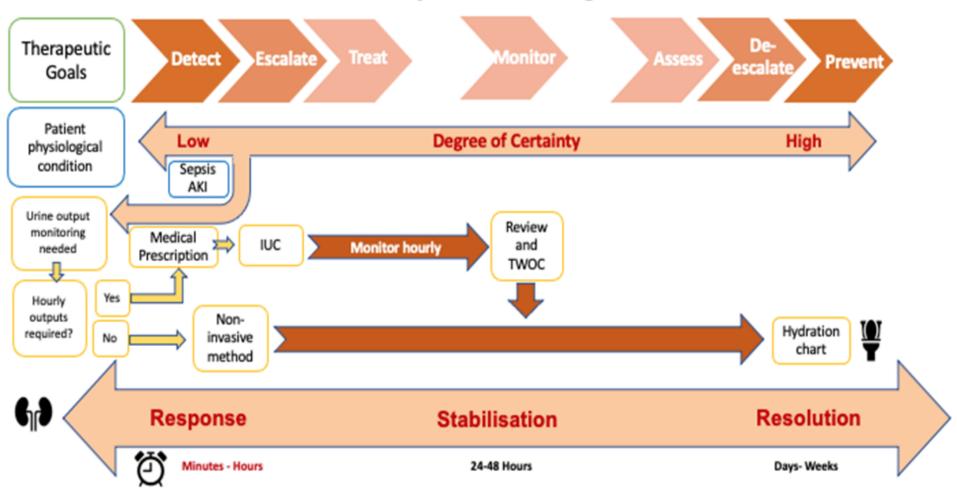
50%-70% of CAUTIS are thought to be preventable





Catheter Stewardship

The Urine Output Monitoring Continuum





System complexity – barriers

- Continence provision <u>Excellence in continence care</u> and pathways of care / commissioning for continence care across providers
- Communication between providers and across pathways of care
- Pathways of care for provision of trial without catheter and catheter review
- Commissioning of consumables between providers
- Training and behaviour change in health care workers regarding hydration, catheter care, bowel care and continence management. Including training and education in the use of catheter alternatives
- Barriers perceived or in place between health, social care and public health messaging
- Silo working medicines management, Infection Prevention and Control, continence, urology and public health
- Small change programmes have worked using QI approaches difficult to scale up due to system complexity



System opportunities

- Integrated care systems est. July 2022 <u>NHS England » What are integrated care systems?</u>
- Integrated care partnership (ICP) -bringing together health, social care and public health to meet the needs of the population. Focus on prevention and population based healthcare management.
- Integrated care board (ICB) statutory NHS organisation, replaces CCGs has to have a plan for meeting health needs of the population
- The Long Term Plan (<u>Prevention Antimicrobial resistance</u>)
- Strategic planning must include UTI and CAUTI reduction at system and at place
- Subsidiarity principle that decisions are best made at the closest to the patient to get engagement and get people on board.
- Myron Rodgers change in complex systems <u>Myron Rogers | Leadership</u> <u>(leadershipcentre.org.uk)</u>

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	Source of Infection Spe reporting on specific wo			asion work and						
UTI and CAUTI Worksteam Access and review the system Right Care Data for UTI and CAUTI and ensure recommendations are reflected in the workplan Undertake a assessment against the Weish Standards for UTI prevention, testment and reduction. Ensure gaps and learning and reflected in a ICS acrossan				Person responsible		Date/timescales		Evidence	Toolafinka	
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Develop a communications package for patients and carers on UTI and CAUTI prevention									Mtps://www.bing.com/videos/search?g=e- videos/docid=607998116495868602764mid 280/CDF5F15490F6A8558280CDF5F154 A&view=:bitali#F0RM=VIRE	
Ensure that there are policies and procedures across the ICS for the management of patients with univery incontience. Pathways and is correspondent to the place to ensure test practice Ensure system policies and pathways for patients with indexing univery catheters. Implementing the NHSE catheter passport and care plan. Ensure pathways allow for a h-busies and out of busis response to its block and bigsassing catheters Ensure statistics (is contractive management, intermittaint self Ensure statistics).								MMS commissioning a Continence benderstaries of		
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catheterisation, indeveling catheter insertion and catheter care Review prevention reporting standards to ensure that Place or Partnerships or Providers record on measures to brevent UTI and CAUTI										
14	Accurate and timely dia implement dip or not to carers and staff are trail	gnosis of UTI and dip pathways acro	CAUTI ss the ICS and e							
Place, Partnership or Provider assurance on implementation of NICE and										respertively not ong us guidance constitu-

Summary

- Digital opportunities record keeping and surveillance. Use of QR codes to scan products into records
- The design of the catheter
- Accurate alternatives for measuring urine output
- Working collaboratively as a system
- Supporting and developing continence pathways and access to continence advice and products
- Education public, carer and healthcare worker



Thank you for listening

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