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Lárionad Faire um Chosaint Sláinte

Healthcare-associated infections & antimicrobial use in long-term care facilities (HALT) 2016

Training Day: Lecture 5
Case Studies: 6 – 9
Student Version

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Presentation Outline

- This session gives you a chance to do more practice completing the resident questionnaire

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Case Study 6: R Rosalind

- R. Rosalind is a 95 year-old female (born in 1921), who has been living in the residential care setting full-time for less than a year
- She is present at 8am on the survey day. Her resident study number is A02
- She is very debilitated, doubly incontinent, bedridden and disorientated
- She has a sacral pressure sore
- She has no urinary catheter/no vascular catheter/ no wounds
- Her last hospital admission was eight months ago

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Case Study 6: R Rosalind

- On the day of the survey (8th May) she has oedema of her lower right leg, which is also hot to touch, red and tender
- The symptoms started 7th May and R. Rosalind's GP had prescribed fusidic acid cream for twice-daily application for seven days
- A leg swab was taken but the result isn't back yet from the lab

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Case Study 6: R Rosalind

- Does R Rosalind need a resident questionnaire?

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Point to note

Q: What is the difference between a systemic antimicrobial and a topical antimicrobial?

A: Systemic route =

- Oral/enteral/PO/via PEG/NG tube
- Inhaled/nebulised/aerosolised
- Intravenous/IV
- Intramuscular/IM

Topical route = creams/ointments/lotions

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What infection do you think R Rosalind might have?

- If you're not sure – cast the net wide
- Record all of the signs and symptoms
- For chronic signs and symptoms – they need to be acutely worse
- **USE THE HALT PROTOCOL**

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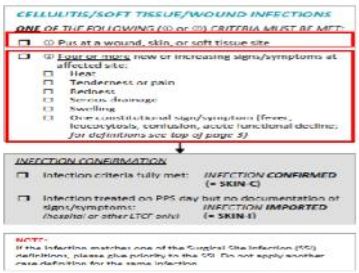
Case Study 6: R Rosalind


CELLULITIS/SOFT TISSUE/WOUND INFECTIONS

ONE OF THE FOLLOWING (a) or (b) CRITERIA MUST BE MET:

☐ (a) Pus at a wound, skin, or soft tissue site

☐ (b) Four or more new or increasing signs/symptoms at affected site:
- ☐ Heat
- ☐ Tenderness or pain
- ☐ Redness
- ☐ Serous drainage
- ☐ Swelling
- ☐ Other constitutional sign/symptom (fever, leucocytosis, confusion, acute functional decline; for definitions see top of page 3)

INFECTION CONFIRMATION

☐ Infection criteria fully met: INFECTION CONFIRMED (= SKIN C)

☐ Infection treated on PPS day but no documentation of signs/symptoms: INFECTION IMPORTED (= SKIN I)

NOTE:
If the infection matches one of the Surgical Site Infection (SSI) definitions, please give priority to the SSI. Do not apply another case definition for the same infection.

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Case Study 6: R Rosalind
IF INFECTION CONFIRMATION COMPLETE, Don't forget to go back and finish Part B on Page 2

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Case Study 7: J Juliet

- J. Juliet is an 84 year-old female (born in 1932), who has been living full-time in the LTCF for two years after being unable to live on her own due to the onset of dementia
- She had a stroke 20 years ago but made a full recovery with no lasting affects
- She is present at 8am on the survey day and her resident study number is A05
- She also has high blood pressure (which she is on medication for) and a mobility problem (due to a hip replacement two years ago) for which she has a walking aid
- She has a history of recurrent urinary tract infections

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Case Study 7: J Juliet

- She has no urinary catheter/no vascular catheter/ no pressure sores / no wounds
- She is disorientated due to her dementia, but fully continent
- She has had no hospital admissions in previous six months
- Her medication regime, as prescribed by her geriatrician at her last visit to the clinic six months ago, is as follows: bendroflumethiazide 2.5 mg once daily (morning), donepezil hydrochloride 10 mg once daily, oral trimethoprim 100 mg once daily
- On the day of the survey (8th May) staff have not noticed any changes in her condition for at least the last two weeks and there has been no urine dipstick or MSU sent in that time
- Of note, she has no dysuria, no fever, no leucocytosis and no new or increased frequency, urgency, haematuria, or suprapubic pain

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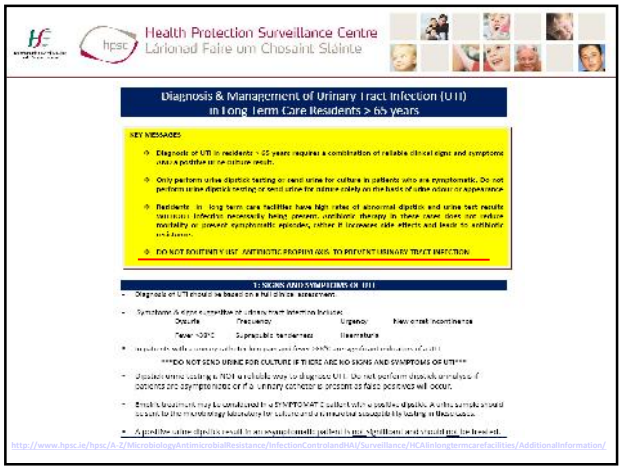
Case Study 7: J Juliet

- Does J Juliet need a resident questionnaire?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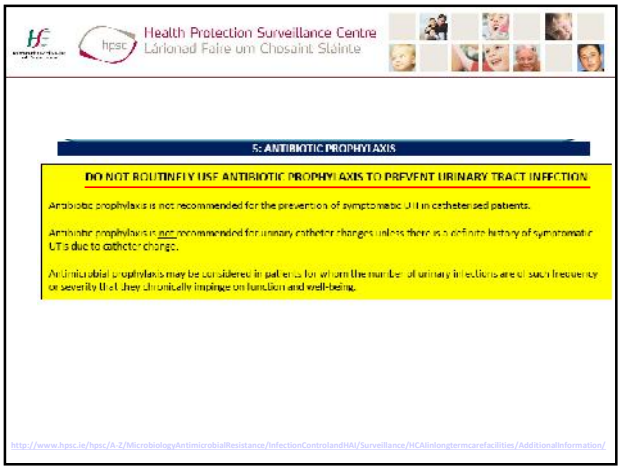
Diagnosis & Management of Urinary Tract Infection (UTI) in Long Term Care Residents > 65 years
KEY MESSAGES
DO NOT ROUTINELY USE ANTIBIOTIC PROPHYLAXIS TO PREVENT URINARY TRACT INFECTION
1: SIGNS AND SYMPTOMS OF UTI
DO NOT SEND URINE FOR CULTURE IF THERE ARE NO SIGNS AND SYMPTOMS OF UTI
http://www.hpsc.ie/hpsc/A-Z/MicrobiologyAntimicrobialResistance/InfectionControlandHAI/Surveillance/HCAIinlongtermcarefacilities/AdditionalInformation/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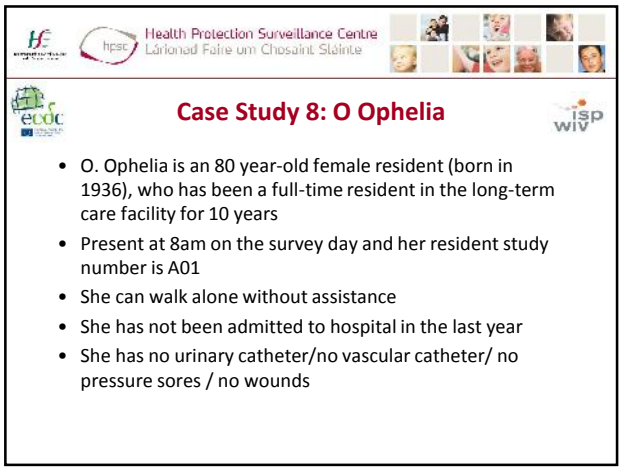
5: ANTIBIOTIC PROPHYLAXIS
DO NOT ROUTINELY USE ANTIBIOTIC PROPHYLAXIS TO PREVENT URINARY TRACT INFECTION
Antibiotic prophylaxis is not recommended for the prevention of symptomatic UTI in catheterised patients.
Antibiotic prophylaxis is not recommended for urinary catheter changes unless there is a definite history of symptomatic UTIs due to catheter change.
http://www.hpsc.ie/hpsc/A-Z/MicrobiologyAntimicrobialResistance/InfectionControlandHAI/Surveillance/HCAIinlongtermcarefacilities/AdditionalInformation/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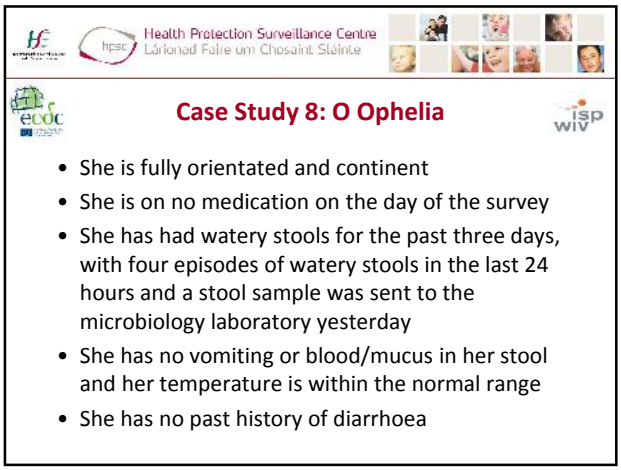
Case Study 8: O Ophelia
O. Ophelia is an 80 year-old female resident (born in 1936), who has been a full-time resident in the long-term care facility for 10 years
Present at 8am on the survey day and her resident study number is A01
She can walk alone without assistance
She has not been admitted to hospital in the last year
She has no urinary catheter/no vascular catheter/ no pressure sores / no wounds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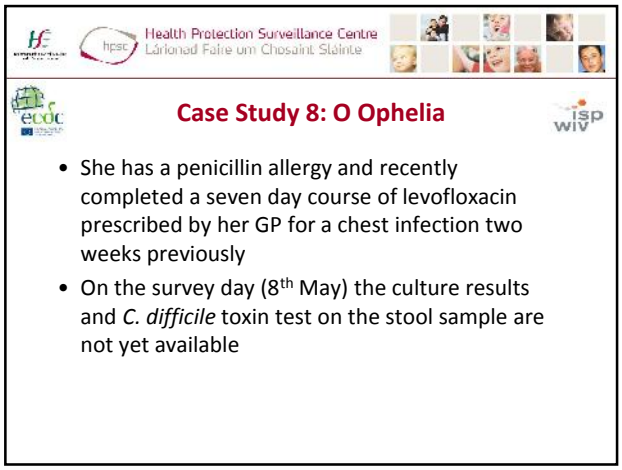
Case Study 8: O Ophelia
She is fully orientated and continent
She is on no medication on the day of the survey
She has had watery stools for the past three days, with four episodes of watery stools in the last 24 hours and a stool sample was sent to the microbiology laboratory yesterday
She has no vomiting or blood/mucus in her stool and her temperature is within the normal range
She has no past history of diarrhoea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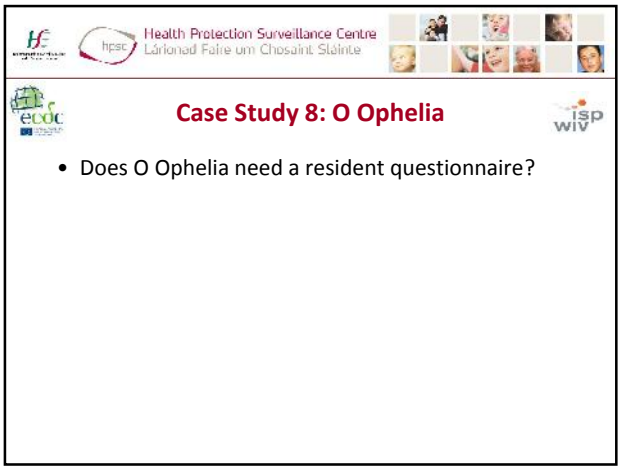
Case Study 8: O Ophelia
She has a penicillin allergy and recently completed a seven day course of levofloxacin prescribed by her GP for a chest infection two weeks previously
On the survey day (8th May) the culture results and C. difficile toxin test on the stool sample are not yet available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Case Study 8: O Ophelia
Does O Ophelia need a resident questionnaire?

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Case Study 8:
What infection do you think O Ophelia might have?

- If you're not sure – cast the net wide
- Record all of the signs and symptoms
- For chronic signs and symptoms – they need to be acutely worse
- **USE THE HALT PROTOCOL**

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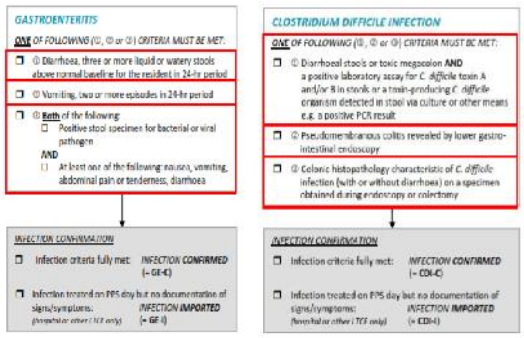

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Case Study 8: O Ophelia
IF INFECTION CONFIRMATION COMPLETE, Don't forget to go back and finish Part B on Page 2

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Point to note

Q: If the microbiology laboratory had telephoned the ward before you started your HALT survey to report that *Clostridium difficile* toxin was detected from O Ophelia's stool sample taken yesterday, would this change your HCAI type?

A: Yes – O Ophelia would now meet the case definition for *C. difficile* infection

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Point to note

Q: If O Ophelia meets the case definition for both gastroenteritis **AND** *C. difficile* infection, should I tick infection confirmed for both infections?

A: No – If O Ophelia has *C. difficile* infection - the infection for which there is the best evidence – (i.e. it has a positive laboratory result to confirm it) trumps the infection without evidence

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Did you know?

- In Ireland, 9% of all *C. difficile* infections reported in 2015 originated in long-term care facilities
- 9% of all *C. difficile* infections reported in 2015 had the onset of symptoms in a long-term care facility
- Antibiotic use is the **major risk factor** for *C. difficile* infection

http://www.hpsc.ie/hpsc/A-Z/Gastroenteric/Clostridiumdifficile/CdifficileSurveillance/CdifficileEnhancedSurveillance/Reports/

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National *C. difficile* infection guidelines were updated in February 2013

Table R2: SIGHT Mnemonic protocol

S	Suspect that a case may be infective where there is no clear alternative cause for diarrhoea
I	Isolate the patient. Consult with the infection prevention and control team (IPCT) where available while determining the cause of the diarrhoea
G	Gloves and aprons must be used for all contacts with the patient and their environment
H	Hand washing with soap and water should be carried out after each contact with the patient and the patient's environment
T	Test the stool for *C. difficile* toxin, by sending a specimen immediately

Adapted from SIGHT Mnemonic UK protocol

http://www.hpsc.ie/A-Z/Gastroenteric/Clostridiumdifficile/Guidelines/

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http://www.hpsc.ie/A-Z/Gastroenteric/Clostridiumdifficile/Guidelines/File,14387,en.pdf

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Case Study 9: R Rosencrantz

- R. Rosencrantz is a 66 year-old male (born in 1950), with early onset dementia, who has been living full-time in the LTCF for the last five years
- He is in his bed at 8am on the survey day and his resident study number is A07
- He is physically well, but disoriented to the reality of the world around him
  - He has no idea of staff names, current affairs, the country he lives in or the day/month/year he is living in
  - However, he can find his way unattended to the dining room for meals, and knows which drawer in the nurses office cigarettes are stored in

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Case Study 9: R Rosencrantz

- He has had no hospital admissions since arriving in the LTCF
- Over the last two days he has been urinating more often
- He has no urinary catheter/no vascular catheter/ no pressure sores / no wounds and is fully continent
- His temperature was taken on the morning of the survey (8th May) and was recorded as 37.6°C
- No urine sample has been sent for laboratory analysis nor has a dipstick test been carried out

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Case Study 9: R Rosencrantz

- Does R Rosencrantz need a resident questionnaire?

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What infection do you think R Rosencrantz might have?

- If you're not sure – cast the net wide
- Record all of the signs and symptoms
- For chronic signs and symptoms – they need to be acutely worse
- **USE THE HALT PROTOCOL**
- If you think a resident might have signs or symptoms consistent with a urinary tract infection, check for a urinary catheter

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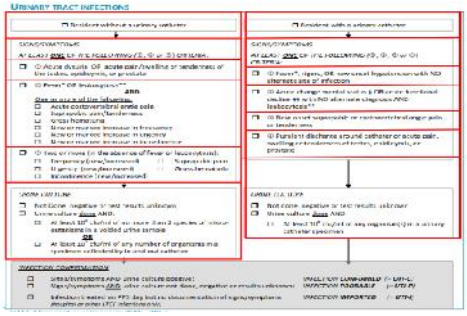
Resident Questionnaire – UTI Section
See HALT Protocol Section 2.3.3.10 (Page 43)



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Point to note for data entry into HALT software

Only information in grey 'INFECTION CONFIRMATION' boxes from the HCAI case definitions section of the resident questionnaire should be transcribed into 'Part B: Healthcare associated infections' for entry into the software

- The information on a paper resident questionnaire will not be entered into the HALT software if a resident does not meet HCAI definition and resident is not prescribed antimicrobials
- **Tick off all signs and symptoms in algorithms on paper version of the resident questionnaire, so you don't miss a HCAI**

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Point to note

- In situations, where symptoms and signs have been recorded but the resident does not ultimately meet criteria in the INFECTION CONFIRMATION box for a HCAI, write this clearly on page 1 of the resident questionnaire – 'HCAI definition not met'
- This will be helpful later on when you are entering data into the software

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Well done!
Thank you for your attention

halt@hpsc.ie

See Case Studies 10, 11 & 12 if you want to practice more
E-mail the address above to request answer slides for case Studies 10, 11 & 12