



Antimicrobial Stewardship Managing common infections in LTCF

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2016
Use Standard Precautions for ALL Residents at ALL times
#safepatientcare

Learning Outcomes

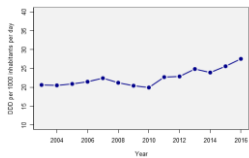
- National Picture on Antibiotic use
- Problem of Antibiotic Resistance
- 3 Most Common Infections in LTCF – minimize inappropriate antibiotic use
- Demystify Antimicrobial Stewardship – How to put it into practice at the frontline with limited resources .

September 2016 Use Standard Precautions for ALL Residents at ALL times #safepatientcare



Community Antibiotic consumption

IMS Sales data collated by HPSC





Upward trend

Significant inter county variations

September 2016 Use Standard Precautions for ALL Residents at ALL times #safepatientcare



Antibiotics prescribed to over 65's 
 children and younger adults

PCRS Data: Defined daily dose DDDs per 1000 GMS patients

Table A: Total DDDs per 1000 GMS eligible population per day from 2012 to 2015



	2012	2013	2014	2015
TOTAL	34.03	34.43	35.00	35.39

Table B: DDDs per 1000 eligible pop per day by age groups

	2012	2013	2014	2015
Age <16 years	20.99	21.87	21.24	20.75
16-44 years	29.99	29.37	30.13	28.62
45-64 years	36.59	36.40	35.74	37.71
65+ years	50.20	52.19	54.34	56.94
Total	34.03	34.43	35.00	35.39

Ref: Analysis by Dr Kathleen Bennett for HSE Medicines Management Programme,

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Antibiotics prescribed to over 65's 
 children and younger adults

PCRS Data :actual number of prescriptions

Table C: Number of Items and rate (Items) per 1000 GMS eligible population per year from 2012-2015

	2012	2013	2014	2015
TOTAL Items	2874338	2819388	2673158	2629379
Rate of Items/1000 GMS/yr	1550.45	1524.50	1511.37	1486.62

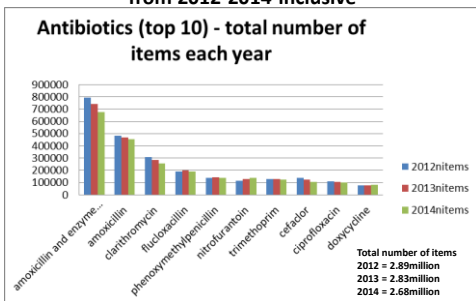
Table D: Rate of Items per 1000 eligible per year pop by age groups

	2012	2013	2014	2015
Age <16 years	1473.80	1355.84	1290.37	1210.11
16-44 years	1207.06	1188.71	1193.63	1114.04
45-64 years	1482.28	1464.34	1408.97	1443.99
65+ years	2154.47	2211.60	2251.70	2307.60
Total	1550.45	1524.50	1511.37	1486.62

Ref: Analysis by Dr Kathleen Bennett for HSE Medicines Management Programme,



Prescribing of antibiotics (all ages) in the GMS scheme from 2012-2014 inclusive



Ref: Analysis by Dr Kathleen Bennett for HSE Medicines Management Programme, 18th Nov 2014



Every time we consider prescribing GP's/hospital doctors need to ask themselves

Is this antibiotic really necessary ?
Is there reasonable certainty of a bacterial infection ?





Every time we as healthcare workers consider influencing a decision to use antibiotics need to ask ourselves

Is this antibiotic really necessary ?
Is there reasonable certainty of a bacterial infection



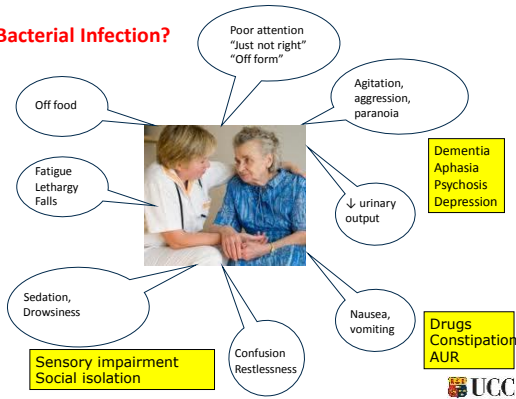
3 Groups of Patients



- Bacterial infection
- Viral infection
- Not so sure
 - Near patient testing Crp
 - Laboratory test
 - Use time and reassess



Bacterial Infection?



Dr Paul Gallagher - Care of the elderly



Bacterial infection LTCF ?

- Can be difficult to assess
- Symptoms often vague and non-specific
- Changes in nursing staff and doctors
- Poor documentation
- Limited availability of diagnostic tests
- Colonization Vs Active illness caused by infection



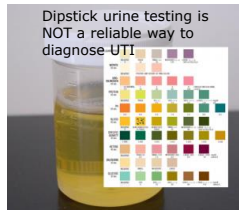
LTCF Resident 30 – 50% of frail, elderly long-term care residents can have a positive urine culture without symptoms of UTI

Do NOT perform dipstick urinalysis if patients are asymptomatic or if urinary catheter present (false positives)

A positive urine dipstick result in an asymptomatic patient is not significant and should not be treated

DO NOT SEND URINE FOR CULTURE IF THERE ARE NO SIGNS AND SYMPTOMS OF UTI

Dysuria, frequency, urgency, new onset incontinence, fever > 38°, suprapubic tenderness, haematuria
 Urinary catheter: loin pain, fever > 38°



Urinary Tract Infection –must have symptoms and signs

Respiratory Tract Infections

- Viral
- Bacterial
- Aspiration- esp recurrent chest infections
- Are there symptoms and signs of infection:
purulent sputum, fever, cough, dyspnoea, tachypnoea, risk of aspiration
- Are there flu-like symptoms?
- Are there other causes of respiratory symptoms
e.g. CCF, PE, COPD, Asthma, neuromuscular pain (rib fracture), pleural effusion, fibrosis, cancer
- Could there be another cause of cough e.g. ACE inhibitor

Clinical history and examination is essential



Leg ulcers

- Antibiotics do not improve ulcer healing unless there is active infection
- Culture swabs and antibiotics are only indicated if there is evidence of clinical cellulitis, pyrexia, worsening pain
- Initial treatment: flucloxacillin or clarithromycin for 7 days, then review
- Review antibiotics after culture results
- Refer for specialist opinion if severe infection, suspected osteomyelitis, severe pain etc.



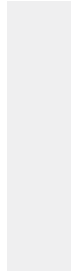
LTCF -Engage with the relatives

- Management plan
- Why antibiotics are being prescribed
- Why antibiotics are not being prescribed
- Why UTI prophylaxis is being stopped
- When can they expect their loved one to be better
- LTCF Deprescribing policy



Am I keeping my patients Safe from Antibiotic Side-effects

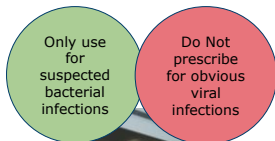
- Nausea vomiting , diarrhoea ,rashes
- Toxicity from prolonged use – nitrofurantoin for UTI prophylaxis and pneumotoxicity
- Toxicity from idiosyncratic reactions –liver failure with co amoxiclav
- Toxicity when dose not reduced or incorrect antibiotic used for patients with chronic kidney disease
- Interaction with other medicines – statins and macrolides
- C. diff overgrowth leading to serious infection after few doses of antibiotic
- Serious Allergic reactions



Demystify Antibiotic Stewardship?

Using antibiotics wisely and safely

- Ensuring you prescribe the right antibiotic for the patient in front of you
- Right dose duration and route for the condition you are treating
- Cause the least amount of harm (toxicity) to that patient
- Least harm to future patients by limiting antibiotic resistance



What can individual Gp's do to ensure safe antibiotic use?

Reflect on your individual prescribing habits .

Have I consulted the antibiotic guidelines recently? www.antibioticprescribing.ie

INTEGRATED GUIDANCE

Am I familiar with the preferred antibiotics ?



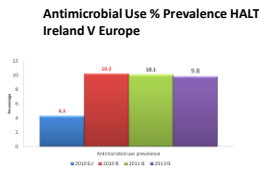
Some more progress this year

- DOH – One Health Strategy – Update SARI National Strategy
- HSE National Task for for HCAI AMR
Governance structure at Directorate level
Governance at CHO level
HCAI AMR committees/expert teams 3 year plan
- Urinary resistance and antibiotic audit data tool for all Gp software systems 2016/2017
- OOH Antimicrobial stewardship project
- HIQA Primary and Community PCHCAI standards 2017



Key points from HALT 2013 for Action

- Irish nursing home patient's more that twice as likely to be on an antibiotic
- Almost 40 % of the antibiotics prescribed are for prophylaxis mainly UTI
- > 80 % of antibiotics in Irish Nursing homes are initiated by Gp or locally employed doctor
- Co-amoxiclav is the most frequently prescribed antibiotic
- Don't forget about influenza and pneumonia vaccine



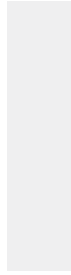
LTCF 1 – What you can do now antibiotic prescribing

- Review any patients on prophylactic treatment for UTI
- Prescribe first line recommended antimicrobials for UTI – nitrofurantoin or trimethoprim
- Do not prescribe antibiotics unless there is a definite clinical indication to do so. Most RTI's are viral, most skin /ulcer swabs irrelevant .
- Develop simple antibiotic prescribing policy for nursing home residents based on www.antibioticprescribing.ie
- Possible idea for audit requirement's 2016/2017 cycle



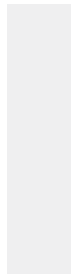
LTCF 2-Vaccination

- Ensure all residents have annual influenza vaccination
- Ensure all residents have had pneumococcal vaccine
- Be especially careful of short term residents – add to check in details .
- Strongly promote annual influenza vaccination for all LTCF staff



LTCF 3- Education

- Ensure all staff have regular hand hygiene training
- Promote and refresh knowledge and use of Standard Precautions regularly
- HSE Learning land HH and Standard Precautions modules
- ICGP Infection Prevention and Control eLearning module
- Check out leaflets available for healthcare staff patients and relatives visiting on www.hpsc.ie and www.hse.ie/antibiotics



Antibiotics Kill Bacteria

- Use of antibiotics should only follow clinical assessment where the most likely cause of symptoms is Bacterial Infection
- No Symptoms or Signs of Bacterial Infection
= NO ANTIBIOTIC

Keeping Antibiotics Safe And Effective For Future Generations ...
Its everyones responsibility

