Common infections in the elderly (SC)

Pneumonia in the elderly: overview

Learning Objectives:

1. Thinking of infection: Presenting features of infection & pneumonia in the elderly can be 'nonspecific'
2. General approach to care of the elderly patient (with possible infection) in the ED
    a. Early identification of frail elderly (high risk group)
    b. Specific Nursing MOC
    c. Early Functional assessment (as well as medical assessment)
    d. Screen for delirium
    e. Establish goals of care including advanced care planning
3. CAP vs NHAP – organisms
4. CXR interpretation – DDx including aspiration, vital, abscess, TB, cancer
5. Antibiotics in CAP & NHAP - familiarization of eTG guideline
6. Prevention – immunization, screening for aspiration, <u>specific</u> discharge plan
7. Disposition – admission vs hospital in the home /nursing home (paper)/ risk stratification tools

Key References:

Montalto et al Treating Nursing Home Acquired Pneumonia using a medically intensive hospitial in the nursing home model *MJA 203(110) 2015* doi: 10.5694/mja15.00672

Fan et al Hospital in the nursing home program reduces emergency department presentations and hospital admission from RACF's in Queensland *BMC Health Serives Research 2016* doi: 10.1186/s12913-016-1275-z

eTG: Pneumonia in residents of a high-level care nursing home

eTG: Diagnosis and management of aspiration pneumonia

Silver Book (RACGP): Respiratory infections

Overview:

<u>1.Introduction / engagement</u>

Photo

<u>2. Case</u>

Friday afternoon
78yo M, Giulio, with Parkinson's disease from RACF
Reduced appetite last 3 days, less responsive, fall out of bed this morning
GP called – not coming to NH until next day – NH called ambulance
In ED vitals: T37 P90 BP 105/70 Spo2 92% RA RR 26 GCS14
Cat 3 on ramp awaiting bed

Atypical presentation – how might pneumonia present in the elderly?

a. Symptoms are often nonspecific, and include tachypnoea, lethargy, functional decline, incontinence (new onset), alteration in sleep-wake cycles, loss of appetite, increased confusion or agitation. – get good collarteral hx & review past history
b. Examination findings – may difficult to assess – cooperation, comorbidities, vitals may risk stratify
c. Fever

What happened in you hospital when this patient comes into your ED?

d. Early identification of frail elderly (high risk group)
e. Stream to a specific Nursing MOC
f. Early Functional assessment (sits alongside medical assessment)
g. Screen for delirium
h. Establish goals of care (including advanced care planning – extends to community)

3.Organisms

You are the senior at the front door & manage to do a brief assessment of Giulio on the 'ramp' while he awaits a bed in the acute area. The assessment is difficult - he is confused & it's hard to examine him on the ambulance trolley. But you have keen skills & you suspect he may have pneumonia.

How does the spectrum of organisms for CAP & NHAP differ?

Pneumococcus still the most common cause
Less chlamydia & mycoplasma
More gram negatives
Still need to consider legionella

4.CXR's

Ambulance have agreed to take him around to xray…

Let's take a look at the films… (5 films – (on laptop) if small group)

1. LUL pneumonia (Differentiates from exacerbation COPD etc)
2. RLL (consider aspiration pneumonia)
3. Influenza
4. Cavitating lesion (abscess/TB/cancer)
5. CCF (tip: non-infectious causes need consideration in atypical presentation-ECG)

5.Antibiotics

What antibiotics do you use to treat Giulio?

Firstly – what is the diagnosis & what are the goals of care?

eTG guidelines

- CAP
- NHAP (go through this one – printout or laptop)
- Aspiration

6.Prevention

Your resident has looked though his medical record and this is his 3rd presentation to ED in 6 months with a chest infection.

What are your thoughts?

Is it pneumonia? (DDx)
Aspiration (pneumonitis vs infection)
Immunization (pneumovax / fluvax – may be less effective in frail elderly)
Are the patients you seen vaccinated?

7.Disposition

Giulio has a LUL NHAP – after iv fluids and antibiotics in ED his vitals are:
T37.1, P90, RR20, BP 105/65 Spo2 92% room air, GCS1, Lactate 1.5

Admit medical vs community care?

a. Evidence (x2papers / BGS) – care probably as good / better if systems are in place
    a. what structures have you got in your facility?
    b. is referral easy from ED?
b. Decision rules (eg role of CORB / PSI)
c. Is care consistent between RACF-GP/community-ED-Hospital or different /unclear?
d. Is there a deterioration plan in place?
e. Is there good communication of the diagnosis & plan on discharge (includes family)?
f. Should we (or someone) be calling the next day to check the plan is working (significant risk of representation)?

Summary:

Elderly

Other common infections in the elderly: if time…

1. Gastroenteritis
    a. *In community – DDx (surgical – eg. cholecystitis - CT)*
    b. *In NH – outbreak management- outreach care & NH policy that aligns with GP Mx*

2. Cellulitis
    a. DDx – serious (diabetic foot / ischaemia) vs venous insufficiency

3. Other infections
    a. Don't forget usual causes (surgical, TB, HIV, endocarditis, CNS, septic joint) – a good examination & collateral history vital – consider goals of care.