Pharmacology quiz cases – Answer sheet

Case 1a

45 year old male c/o facial pain, worse on left side. Had a cold with blocked nose and discharge for a week, seemed to improve, but then worsened again with thicker, green, nasal discharge more predominant on left, some loss of smell and taste, and face pain over the last week.

PMH: Asthma
DHx: Symbicort turbohaler 100/6 SMART regimen
SHx: Smokes 10-15 cigarettes/day
Allergies: penicillin

a) What is the diagnosis? Acute sinusitis
b) Would you issue a prescription and what for? Doxycycline 200mg stat then 100mg od 7 days. Nasal decongestant spray possibly (Xylometazoline 1 spray BN tds for up to 7 days).
c) What advice would you give? Stop smoking – damage to cilia which can affect mucociliary clearance, paracetamol for pain relief. Worsening advice - come back.

Case 1b

Patient re-presents 2 months later as still feels nose is blocked, and sense of smell and taste still 'not right'. Face is tender rather than painful, and less discharge than there was. Has been using decongestant nasal spray off and on.

a) What is diagnosis? Chronic rhinosinusitis
b) Would changes to the current management would you make?
Stop nasal decongestant spray. Start steroid nasal spray! Decongestants should only be limited to 7 days maximum in fear of rebound rhinitis.

Case 2

A 9-year-old presents with a two-day history of left sided otalgia. There is no otorrhoea, but the patient does find the hearing is muffled.
PMH: Asthma
DHx: Becotide INH 50 two puffs bd, salbutamol INH PRN. Allergies: Penicillin (rash)
On examination, the tympanic membrane is intact and not bulging but is slightly dull. No vomiting, no rash but feeling more lethargic. The child is otherwise, fit and well, eating and drinking.
Temp 37.2 with all other observations normal.
The child was given two doses of paracetamol previous day with some relief.
You make a diagnosis of Acute otitis media.

a) Would you issue a prescription and if so what for? No there is no systemic illness or compromise. 60% of cases will resolve without antibiotics.
b) What are the drawbacks of prescribing antibiotics?
Risks: diarrhoea, vomiting, rash, antibiotic resistance, small effect of reducing pain after 2 days.

c) What advice would you offer?
Selfcare & safety netting. Take paracetamol regularly if needed for a couple of days (caution using ibuprofen with asthma), maintain oral intake. If no improvement 4 days after start of symptoms, or symptoms get worse come back

Case 3

An 18-month-old presents with a one-day history of bilateral otalgia.
PMH: nil
DHx: nil
NKDA
On examination, both membranes bulging but no Otorrhoea, temp 39.4. No rash, no vomiting, more lethargic and off food a little but drinking milk and water. Some discomfort on examination. Has had a cold last few days and still has rhinorrhoea.

a) How would you manage the patient?
Prescribe antibiotics (Concerning features - bilateral bulging membrane, fever, irritability, pain, nasal discharge). First line amoxicillin 250mg tds 5 days.

b) What red flags associated with this condition?
Marked systemic illness. Signs of complications such as mastoiditis – erythematous tender swollen mastoid. Meningitis - Poorly responsive, pale/mottled, continuous crying, seems unwell. Non-blanching rash, neck stiffness, photophobia. This would include any CNS signs.

Case 4

38-year-old female with unilateral itchy, uncomfortable ear. She has been using Earcalm for last 7 days, bought OTC with no real improvement. She does not, however, complain of hearing loss.
PMH: eczema, constipation, pregnant 32/40 weeks gestation
DHx: hydrocortisone 0.1% cream BD PRN, Eumovate cream BD PRN if needed, lactulose.
On examination; The ear canal erythematous and eczematous. You are unable to visualise the tympanic membrane fully, but there is no discharge. The patient complains of some discomfort on examination and on opening her mouth wide.
Apyrexial, no systemically illness.

a)What is your diagnosis? Otitis externa

b)What, if anything, would you prescribe?
Ciprofloxacin ear drops 3 tds 7 days…if some improvement but not completely resolved, continue up to 14 days.

c)What other advice would you give?
Stop using Earcalm as only recommended for 7 days. Keep ear canal dry – avoid swimming/water sports for 7-10 days and use ear plugs/tight swimming cap after that. If any deterioration in symptoms – redness spreading, increased pain, Otorrhoea, fever or feeling generally unwell; come back to GP.

Case 5

72-year-old male presents with two episodes of dizziness within the last two weeks; struggling to keep his balance and feeling nauseated when this happens. The last episode lasted nearly 2 hours.
His symptoms are; unilateral ear fullness, tinnitus and hearing loss.
PMH: Enlarged prostate, urinary frequency and depression since wife passed away 1 year ago.
DHx: Tamsulosin 400mcg od, citalopram 20mg od.

Otoneurological examination is unremarkable.

a) What is your diagnosis? Ménière's disease

b) What is your management in this case?
Betahistine 16mg tds to prevent further attacks, prochlorperazine buccal 3-6mg prn for acute attacks. Na^{2+} reduction in diet.

c) What would your next course of action be?
Refer to secondary care ENT for diagnosis.

d) What tests do you think would be carried out in secondary care?
FBC for anaemia. Pure Tone Audiogram, MRI posterior cranial fossa and Internal Acoustic Meatus.

e) Would you give any further advice on triggers and safety factors?
Consider risks of an attack occurring if driving/operating machinery/swimming etc, and keep prochlorperazine accessible. The patient must inform the DVLA. Try relaxation techniques to prevent an attack. Moving around after an attack may help to restore vestibular balance. Any signs of worsening to come back to GP.