**CASE- Atrial Fibrillation:**

Mrs GG, an 81-year-old lady is admitted through A&E following a fall. She reports that she felt dizzy all of a sudden and 'just went over'. She also felt a 'jump in her chest’. As a result of her fall she has a Colles fracture of her right wrist and extensive bruising on her face, right arm and right leg. She says she feels lucky that she did not do more damage to herself, especially as she lives alone, and she knows that falls are dangerous in older people.

She has a 4 month history of chronic atrial fibrillation (AF) and is attending her local community pharmacy anticoagulant clinic.

Her current prescription is:

Warfarin as per INR

Digoxin 125 micrograms daily

Her arm is in a sling and she will have no effective use of her right arm and hand for the coming 6-8 weeks.

**Questions:**

1. What is atrial fibrillation and risk factors?
2. What is INR? Write the importance of finding INR.
3. What are the major side effects of Warfarin and digoxin?
4. What are the risk factors; pharmacological and non-pharmacological, for falls in older people?
5. Briefly discuss those risk factors which apply specifically to Mrs GG.?
6. Outline how Mrs. GG's risk factors can be reduced?
7. There are a number of sources of 'best practice' to provide advice for treating Mrs GG's atrial fibrillation (AF). Identify four common sources and provide the current references and/or URL for the management of AF.
8. Briefly summaries the advice for managing Mrs GG's chronic AF from each of these sources. Highlight any significant differences between the sources of advice.
9. A risk factor for fracture following a fall in older people is osteoporosis. Is there any best practice advice? If so what is the source and provide a brief summary of that advice.
10. What specific risk factors does Mrs GG have that may increase her likelihood of having decreased bone density?
11. What are the treatment options available to reduce or halt the reduction in Mrs GG's bone density?
12. What would you recommend for Mrs GG and why?
13. The multidisciplinary team decide to recommend treatment with a bisphosphonate for Mrs GG. What issues need to be taken into consideration both before prescribing and for counselling once prescribed
14. The benefits of bisphosphonate treatment are explained to Mrs GG. She accepts that they will be of benefit and are the best treatment currently available but tells you firmly that she will not take a bisphosphonate under any circumstances. Her best friend was on alendronate and suffered intolerable gastric discomfort. She also doesn't fancy the idea of standing or sitting upright for up to an hour after taking the tablets. Using the 4 key ethical principles of beneficence, malevolence, autonomy and justice discuss how you would address this dilemma.
15. Discuss alternative medication or other strategies that may be less effective but more acceptable to the patient.