PBSGL
NHS Education for Scotland
Centre for Health Science
Old Perth Road, Inverness IV2 3JH
Tel: 01463 255712 Fax: 01463 255736
PBSGLadministrator@nes.scot.nhs.uk
http://www.cpdconnect.nhs.scot/pbsgl/

Osteoporosis: Challenges in Management

Practice Based Small Group Learning Vol. 25 (6), May 2017

INTRODUCTION

Osteoporosis and resulting fragility fractures impose an enormous burden – on both a personal and societal level - costing the UK healthcare economy £2.3 billion in 2011 with the potential increase to above £6 billion by 2036.[57]. The approach to osteoporosis – with a shift in focus from bone mineral density to fracture risk – includes appropriate screening and treatment for primary fracture prevention, effective management of fractures when they do occur and prevention of future secondary fractures.

OBJECTIVES

This module will enable clinicians to:

- Appropriately screen for osteoporosis including secondary causes.
- Treat osteoporosis safely and optimally with pharmacotherapy.
- Understand the issues around "drug holidays" from biphosphonates.

CASES

Case 1: William, male, age 89

William has osteoporosis and has been on a bisphosphonate (Alendronic acid 70mg once weekly), with variable compliance for the past 10 years. He uses compression stockings for varicose veins and leg oedema, but he frequently has difficulty getting them on. He has had well-controlled hypertension and is on Ramipril 10mg once daily. In addition to his hypertension, William has impaired fasting glucose, managed with diet; and anxiety for which he is using mirtazapine 30mg once daily Last week, while bent over putting on his compression stockings, he pulled too hard and felt a pain in his back. He attends the surgery today thinking that he has "pulled a muscle."

He is having significant difficulty walking even with a zimmer. He has been sleeping in a recliner in the living room because of the pain and also because he needs help from his 86-year-old wife to get out of bed. On examination, he has a longstanding kyphosis of his thoracic spine. He has tenderness over most of his paraspinal muscles in the lower lumbar area and point tenderness over L1-2. Neurologically he is intact. His blood pressure is 150/80 with no postural change.

What additional information or investigations would be helpful?

Part Two

He has become increasingly frail over the past few years and has had two falls in the last six months. His current creatinine is 89 and his eGFR is 52. He smokes four cigarettes per day and consumes eight units of alcohol per week. He generally avoids caffeine. He takes his calcium and vitamin D supplements inconsistently.

The x-ray report notes "Multi-level degenerative changes throughout the lumbar spine. L1 vertebral body compression fracture with 75% loss of height centrally and about 50% loss of height at the anterior and posterior margins of the vertebral body. There is also some compression of the inferior endplate. L2 superior end plate compression fracture with less than 25% loss of height centrally." William asks you what he can do for pain management as he has tried taking Paracetamol 1g four times daily with only minimal effect.