



# New Medicine Service

A FOCUS ON OSTEOPOROSIS

# Learning for this session

- ▶ **Summary of New Medicine Service**
- ▶ **Recap on osteoporosis**
- ▶ **Overall management of osteoporosis**
- ▶ **Key information on medicines used in osteoporosis**
- ▶ **Key counselling points**
- ▶ **Clinical case study**
- ▶ **Further reading and signposting**



**Objectives**

# NMS - Summary

- ▶ **Patient consent and other data requirements**
- ▶ **Catch up NMS - between 1st September 2021 and 31st March 2022.**
- ▶ **Targets for payment**
  - ▶ All completed NMS provided by a contractor that fall below the 10% target will be paid at £20 each;
  - ▶ Once a contractor reaches the 10% target all completed NMS (including those which fall below the 10% target) will be paid at £25 each;
  - ▶ Once a contractor reaches the 20% target all completed NMS (including those which fall below the 20% target) will be paid at £26 each;
  - ▶ Once a contractor reaches the 30% target all completed NMS (including those which fall below the 30% target) will be paid at £27 each;
  - ▶ Once a contractor reaches the 40% target all completed NMS (including those up to the maximum target) will be paid at £28 each.

# The condition and clinical features

- ▶ Osteoporosis means 'porous bones'
- ▶ Osteoporosis results from a loss of bone mass (measured as bone density) and from a change in bone structure.
- ▶ Causes weakness of bones
- ▶ A simple test known as a bone density scan, or DEXA, can give important information about your bone health.
- ▶ More likely to have fractures
- ▶ 200 million people across the world have Osteoporosis
- ▶ Both male and female

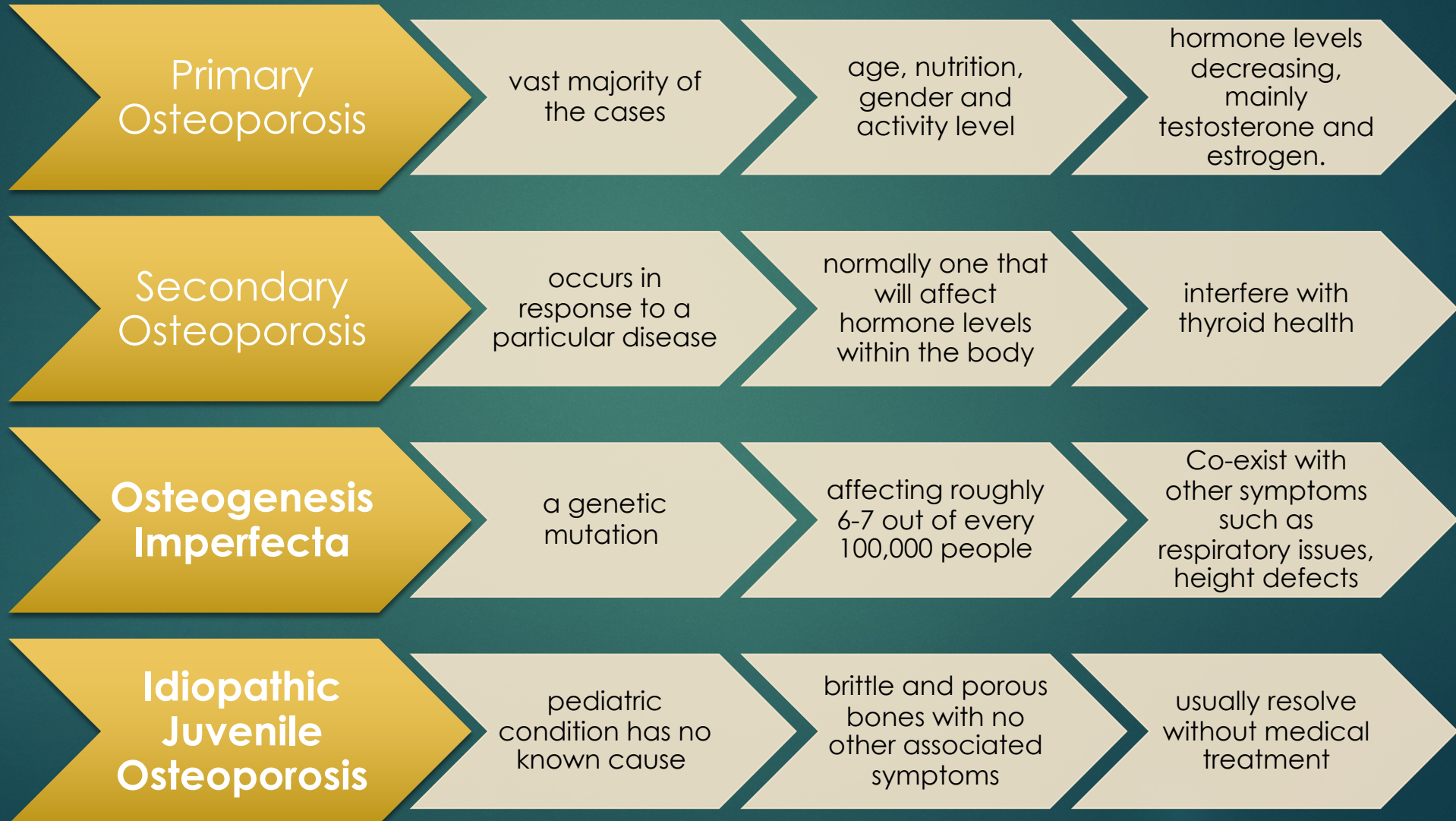
# The condition

- ▶ Bone is living tissue that is in a constant state of regeneration.
- ▶ The body removes old bone and replaces it with new bone
- ▶ Bone looks like a sponge
- ▶ Holes in that sponge = osteoporosis
- ▶ After the age of 35 yrs bone breaks down faster than bone build up
- ▶ Loss of bone mass



# The condition

The main types of glaucoma are



# Clinical features

- ▶ Usually, there are no symptoms of osteoporosis.
- ▶ silent disease.
- ▶ Loss of height (getting shorter by an inch or more).
- ▶ Change in posture
- ▶ Shortness of breath.
- ▶ Bone fractures.
- ▶ Pain in the lower back.



# Risk factors

Age

Gender

Body size

Race

Family  
history

Hormone  
changes

Diet

Medication

Lifestyle



# The management

► NICE Guidance <https://cks.nice.org/topics/osteoporosis-prevention-of-fragility-fractures/>

► BNF <https://bnf.nice.org.uk/treatment-summary/osteoporosis.html>

Treatments for osteoporosis			
Calcium & Vit D	Bisphosphonates	alternatives	Monoclonal Antibody
Accrete	alendronic	Strontium ranelate	denosumab
calfovite	ibandronic		
calcichew	risedronate		
cacit	zoledronic		
adcal	pamidronate		

# The medicines

## Calcium and Vit D

1g calcium

400 units vit D

Peanut or soya CAREFUL

GI disturbances

Hypercalcaemia

Hypersensitivity reactions

Reduces absorption of bisphosphonates

# The medicines

## Bisphosphonates

Preferred 1st line treatment

Inhibit bone resorption

Help bones to remain strong and intact

May help to slow the thinning down

Dosing – once daily to once yearly

Full glass of water, sitting upright

Heartburn, headache, throat irritation, flatulence, dysphagia, irregular heart beat

Osteonecrosis - dental

## ▶ Difference between Bisphosphonates

drug	daily	weekly	monthly	intravenous	review
Alendronate sodium	✓	✓			Every 5 years
Risedronate sodium		✓			Every 5 years
Zoledronic acid				✓	Every 3 years
etidronate	✓				Every 5 years
ibandronate	✓		✓ And every 3 months		Every 5 years

# The medicines – **Strontium ranelate**

Inhibitory effect on osteoclast

Stimulates bone formation

Severe osteoporosis in men and women

2g once daily

At bedtime

Increase risks of CVD

# Self-help counselling points

- Getting more exercise, specific types of exercise can help
- eating a balanced diet rich in calcium and vitamin D
- reducing unhealthy habits like smoking or excessive drinking
- reduce chances of a fall

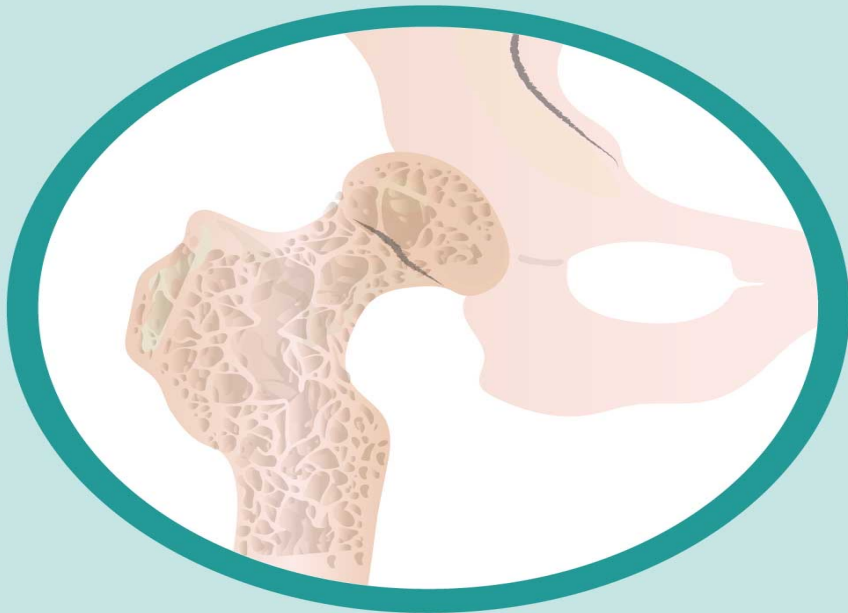
## If recovering from fall or fracture





- hot and cold treatments such as warm baths and cold packs
- TENS
- relaxation techniques



# Self-help counselling points

## Exercises to Avoid with Osteoporosis



-  **High-impact exercise**
-  **Excessive bending**
-  **Activities that require twisting**
-  **Certain Pilates or yoga moves**

# Clinical case study

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65-year-old woman. Natural menopause at age 50. 10-year history of hypertension (currently treated and controlled). presents her first prescription for alendronic acid 70mg

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**What would you talk about with this patient?**

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**Would you recommend any vitamins?**

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One week later, at the next NMS session, she asks why it is important to sit upright for 30 minutes

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**What do you say?**

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at the second NMS session the lady said she is considering to stop the tablets as she is suffering vomiting and GI discomfort

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**What do you advise?**

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# Bibliography/References

- ▶ <https://www.bones.nih.gov/health-info/bone/osteoporosis/overview>
- ▶ <https://www.rheumatology.org/I-Am-A/Patient-Caregiver/Diseases-Conditions/Osteoporosis>
- ▶ <https://www.sheffield.ac.uk/NOGG/>
- ▶ <https://www.hopkinslupus.org/lupus-treatment/common-medications-conditions/osteoporosis-medications-bisphosphonates/>
- ▶ <https://www.nottingham.ac.uk/primis/documents/audit-docs/osteoporosis-quick-guide.pdf>
- ▶ <https://rcc-uk.org/wp-content/uploads/2019/07/Osteoporosis-Quality-Standard-FinalA4-version-web.pdf>

# Clinical case study

65-year-old woman. Natural menopause at age 50. 10-year history of hypertension (currently treated and controlled), presents her first prescription for alendronic acid 70mg

**What would you talk about with this patient? Lifestyle advice such as smoking, alcohol, eat well. Stress the importance of once weekly dose and to take on an empty stomach and sit upright for 30minutes**

**Would you recommend any vitamins? The patient should take 1200mg of calcium and 400units of Vit D. remember to mention about leaving 30minutes before taking alendronic acid**

One week later, at the next NMS session, she asks why it is important to sit upright for 30 minutes

**What do you say? This will help with the absorption and to help prevent GI discomfort**

at the second NMS session the lady said she is considering to stop the tablets as she is suffering vomiting and GI discomfort

**What do you advise? She could wait to see if this wears off over the next month or so. If not she should visit the GP to discuss alternative treatments**