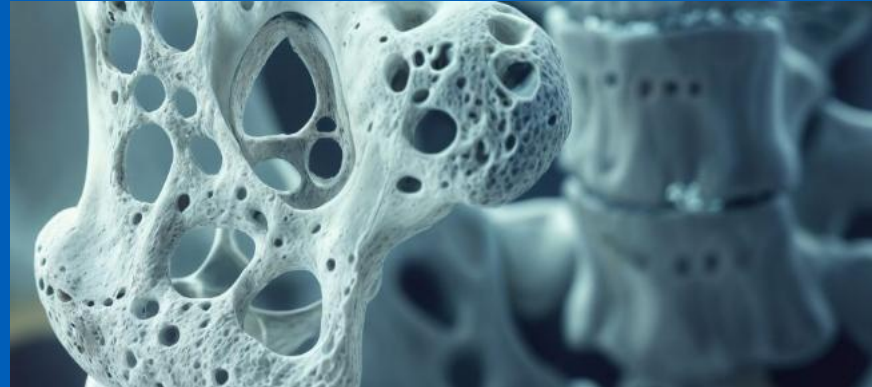


Prescribing leads May 2026 - Bone Health

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<https://nhssomerset.nhs.uk/prescribing-and-medicines-management/prescribing-guidelines-by-clinical-area/bonehealth/>





- If you have osteoporosis or osteopenia, a simple fall can cause a broken bone.
- Around a third of people aged 65 and over, and around half of people aged 80 and over, fall at least once a year.
- More than 1 in 3 women and 1 in 5 men will sustain one or more osteoporotic fracture in their lifetime.
- Hip fractures are the most common fracture requiring hospitalisation
- Hip fracture is fatal in 20% of cases, permanently disables 50% of those affected and only 30% go on to make a full recovery.





March 12, 2026

Janette Palmer: Prevention of future deaths report

- Janette was admitted to the West Suffolk Hospital following an **unwitnessed fall she had suffered at her home address in which she suffered a fracture to her left hip.**
- Upon admission it was identified that she had also had a heart attack (myocardial infarction), although whether or not this occurred before or after her fall could not be established.
- She also suffered from a number of significant co-morbidities, and **a surgical procedure to repair her hip could not be attempted.**
- She went onto **develop a serious chest infection and her condition continued to deteriorate until her sad death.**
- At the time of her fall an electrical power cut at her independent living housing had occurred, meaning that none of the lights were on in Janette's flat when she was found.
- Whether or not the lights were out at the time of Janette's fall, and whether or not the lights being out contributed to her fall, could not be established on the available evidence.

March 26, 2026

Edna Wiggett : Prevention of future deaths report

- Edna **never recovered from essential surgery for a fractured hip and other injuries following an earlier fall at her home.** The long wait she had lying on the floor waiting for an ambulance before her admission more than minimally contributed to her death.





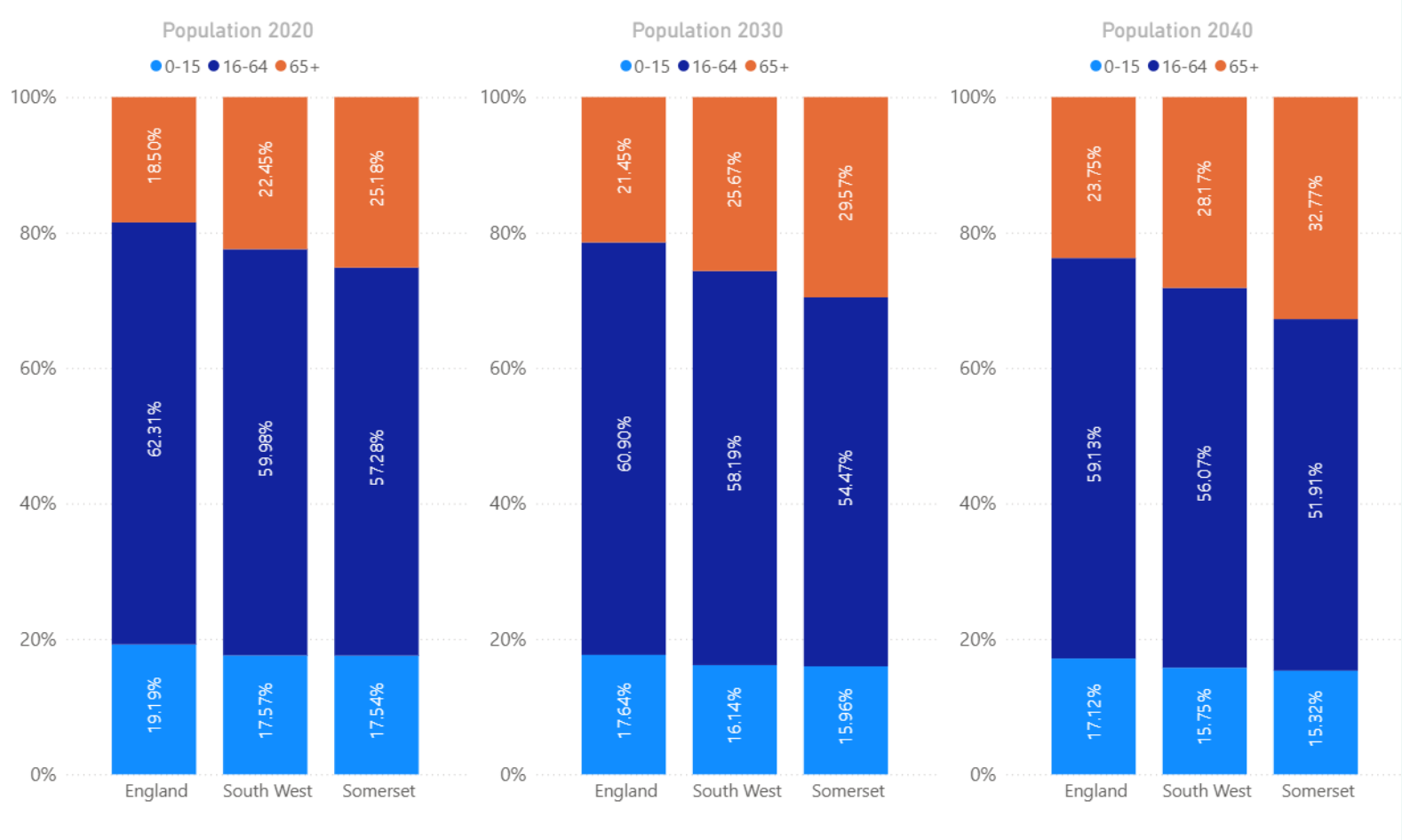
April 17, 2026

Catherine Oliver: Prevention of future deaths report

- She **lived independently in a property owned by Sanctuary Housing**. In the weeks prior to her fall, contractors acting on behalf of Sanctuary Housing **carried out works on the property**. In order to facilitate these works, items stored in the loft were removed and placed in the living room of the property.
- Evidence heard at the inquest established that: **The boxes removed from the loft remained in her living room for nearly four weeks**. During this period, Mrs Oliver and her family made requests for the boxes to be removed, which were not acted upon. The boxes were stacked in an orderly manner but **significantly reduced the available space, leaving a narrow walkway within the living area**. This arrangement materially **restricted her ability to move safely around her home**.
- She fell in the living room and was later found injured in the confined space between her armchair and the stacked boxes and sadly **died following complications arising after a fractured neck of femur**.
- It is not possible to determine whether the presence of the boxes caused her fall, and no such finding is made. However, the evidence demonstrated that their prolonged presence created a mobility hazard within the property.



Somerset has an aging population that is older than the average for both the Southwest region and England, with a significant concentration of residents aged 65 and over.

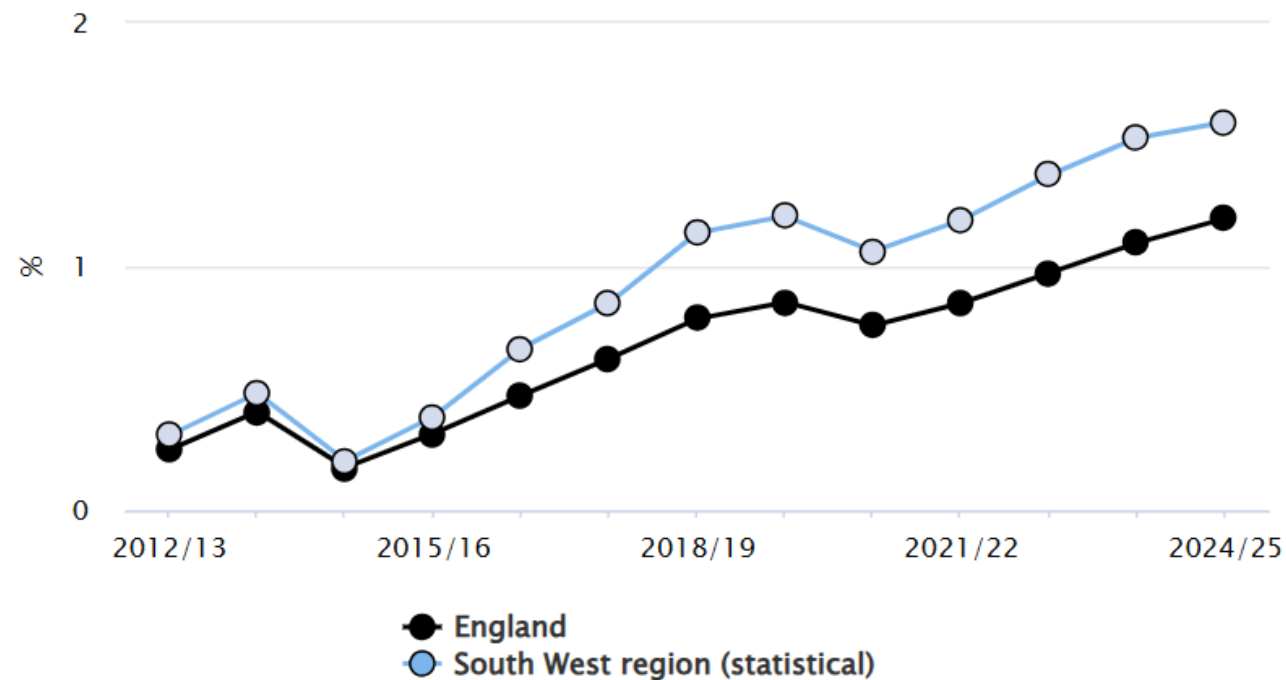


The percentage of patients with osteoporosis, as recorded on practice disease register, from all patients aged 50 or older

Osteoporosis: QOF prevalence (Persons, 50+ yrs)

[Show confidence intervals](#)

[Show 99.8% CI values](#)



Risk factors for poor bone health

- **Sex:** Females are at higher risk.
- **Age:** Bones become thinner and weaker with age.
- **Body Size:** Small, thin frames (BMI of 19 or less) have a higher risk.
- **Family History:** Family history of osteoporosis increases risk.
- **Hormones:** Low oestrogen/testosterone, or too much thyroid hormone.
- **Lifestyle:** Smoking and excessive alcohol consumption



- **Stay active**

- 2 and a half hours of moderate-intensity exercise every week
- activities to improve
 - muscle strength twice a week
 - balance and flexibility twice a week

- **Eating for healthy bones**

- need calcium, vitamin D and protein - balanced diet to maintain a healthy body weight.

- **Quit smoking and reduce alcohol**

- **Poor eyesight can affect mobility**

- **Ear problems can affect balance**

- **Foot problems can affect mobility**

- **Medicines – may cause dizziness/drowsiness**

- **Safe home – avoid accidents**



Vitamin D

- Late March or early April to the end of September, most people should be able to make all the vitamin D they need from sunlight. **But between October and early March we do not make enough vitamin D from sunlight.**
- Vitamin D is found in a small number of foods:
 - oily fish – such as salmon, sardines, trout, herring or mackerel
 - red meat
 - egg yolks
 - fortified foods – such as some fat spreads and breakfast cereals
 - liver (avoid liver if you're pregnant – [find out about foods to avoid in pregnancy](#))
 - Another source of vitamin D is dietary supplements.



~20% of vitamin D is supplied by your diet, while the remaining 80% is produced by your skin through sunlight exposure. Because few foods naturally contain vitamin D, meeting your daily needs often requires intentional dietary choices, fortified foods, or safe sun exposure.



People at risk of vitamin D deficiency

- **Some people will not make enough vitamin D from sunlight because they have very little or no sunshine exposure.**
- The Department of Health and Social Care recommends that adults and children over 4 take a daily supplement containing 10 micrograms of **vitamin D throughout the year** if they:
 - **are not often outdoors – for example, if they're frail or housebound**
 - **are in an institution like a care home**
 - **usually wear clothes that cover up most of their skin when outdoors**
- If you have dark skin – for example you have an African, African-Caribbean or south Asian background – you may also not make enough vitamin D from sunlight. You should consider taking a daily supplement containing 10 micrograms of **vitamin D throughout the year.**



- If dietary vitamin D is required, then patients will need to consider increasing dietary intake or purchase supplement over the counter as this should not be prescribed in primary care as per NHSE guidance (exceptions include patients with malabsorption and post bariatric surgery).
- For deficiency – treatment course may be prescribed short term.



- The CQC requires adult social care providers to have systems in place that enable residents to access over the counter products.



Calcium and Vitamin D supplements do not reduce fractures

Bone sparing agents reduce fractures

- For people high risk of fracture:
 - previous fracture
 - osteoporosis
 - osteopenia (off-label)
 - prescribed
 - corticosteroid (>7.5mg prednisolone or equivalent per day for >3 months) or
 - aromatase inhibitor.



In 1994, the World Health Organization (WHO) defined the “**operational diagnosis of osteoporosis**” with a T-score ≤ -2.5

In addition, the WHO classified a low bone mass (that is, **osteopenia**) as a T-score between **-1.0 and -2.5**

These somewhat arbitrary T-score diagnostic thresholds have prevailed over decades, despite notable advances in individualised assessment of osteoporosis fracture risk.

DEXA scans are not required before commencing treatment with a bone sparing agent

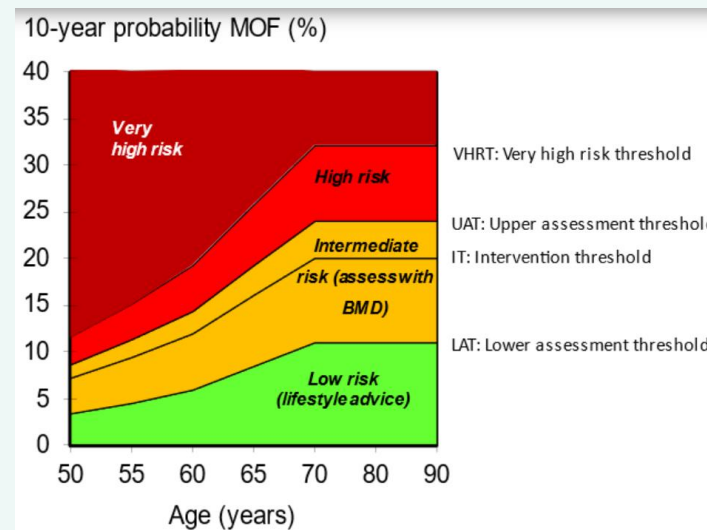


FRAX®

FRAX® Fracture Risk Assessment Tool

QFracture®

QFracture® risk calculator



These tools are limited in that they may not include all risk factors

Fracture risk and treatment need careful individual assessment

Osteoporosis: risk assessment, treatment, and fragility fracture prevention (update) In development - Expected publication date: 29 July 2026



NHS Somerset joint formulary

- Oral bisphosphonates are first line
- Denosumab an option for patients unable to comply with the special instructions for administering oral bisphosphonate, or have an intolerance of, or a contraindication to, those treatments.

net Formulary

NHS Somerset Formulary

Home Chapters News Mobile Reports

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Formulary Chapter 6: Endocrine system - Full Chapter

06.06.02 Bisphosphonates and other drugs affecting bone metabolism

Calcium and vitamin D alone will not reduce fractures.

- Patients high risk of fracture (e.g. previous fracture, osteoporosis, osteopenia, take aromatase inhibitor or corticosteroid equivalent to prednisolone >7.5mg daily for > 3 months) should be considered for bisphosphonate or denosumab if bisphosphonate cannot be taken (e.g. cognitive, swallowing impairment).
- DEXA scans are not required before the option of commencing treatment with a bone sparing agent for patients with high risk of osteoporotic fragility fracture as per NHS Somerset DEXA policy.
- Hypocalcaemia must be corrected before initiating bone sparing agent.
- Calcium and vitamin D can be prescribed alongside bone sparing agent.
- Patients who require a dietary supplement and are not prescribed a bone sparing agent are asked to purchase over the counter and should not be prescribed as per NHSE guidance (exceptions e.g. patients post bariatric procedures and malabsorption).

Risedronate BNF SPC	First Choice GREEN	35mg tablet. For primary and for secondary prevention of osteoporotic fragility fractures. The recommended dose is one 35mg tablet once a week. People should be advised to swallow tablets whole with at least 200 ml of water on an empty stomach immediately after getting up in the morning. They should stay fully upright for at least 30 minutes or one hour after taking the tablet and before taking any food, drink or other medicine. They should also be advised to stop taking the tablets and to seek medical attention if they develop any symptoms of oesophageal irritation such as difficulty or pain upon swallowing, chest pain, or new or worsening heartburn.
Alendronic acid BNF SPC BNF C	First Choice GREEN	70mg tablet. For primary and secondary prevention of osteoporotic fragility fractures. The recommended dose is one 70mg tablet once a week. People should be advised to swallow tablets whole with at least 200 ml of water on an empty stomach immediately after getting up in the morning. They should stay fully upright for at least 30 minutes or one hour after taking the tablet and before taking any food, drink or other medicine. They should also be advised to stop taking the tablets and to seek medical attention if they develop any symptoms of oesophageal irritation such as difficulty or pain upon swallowing, chest pain, or new or worsening heartburn. Licensed alternatives - effervescent tablet (dissolve in at least 120ml water), oral solution sugar-free 70mg/100ml.





Osteoporosis: evidence for vitamin D and calcium in older people

- ▶ Bone loss and fracture risk in older people are not related to calcium intake.
- ▶ Calcium supplements cause small, non-cumulative increases in bone density, but do not reduce fracture incidence.
- ▶ Calcium supplements are associated with adverse effects, some serious (eg, kidney stones, hospital admission for abdominal problems, myocardial infarction).
- ▶ Calcium supplementation in older adults is not supported by recent trial findings, though is still sometimes used in conjunction with some osteoporosis medications. It is not routinely required with bisphosphonates.
- ▶ The combination of severe vitamin D deficiency and potent antiresorptive drugs (zoledronate or denosumab) can result in hypocalcaemia. Correction of severe vitamin D deficiency is important before use of these agents.

- It is standard practice for clinical trials of bone-sparing agents to include calcium and vitamin D supplementation to prevent or mitigate the risk of hypocalcaemia.
- Ensure patient understands that they are prescribed together and if bone sparing agent is paused/stopped, so is the calcium and vitamin D (some practices have included this on emis record and dispensing label as a reminder and to help manage patient expectation).



Total prescribing for *Bisphosphonates and other drugs* across NHS SOMERSET

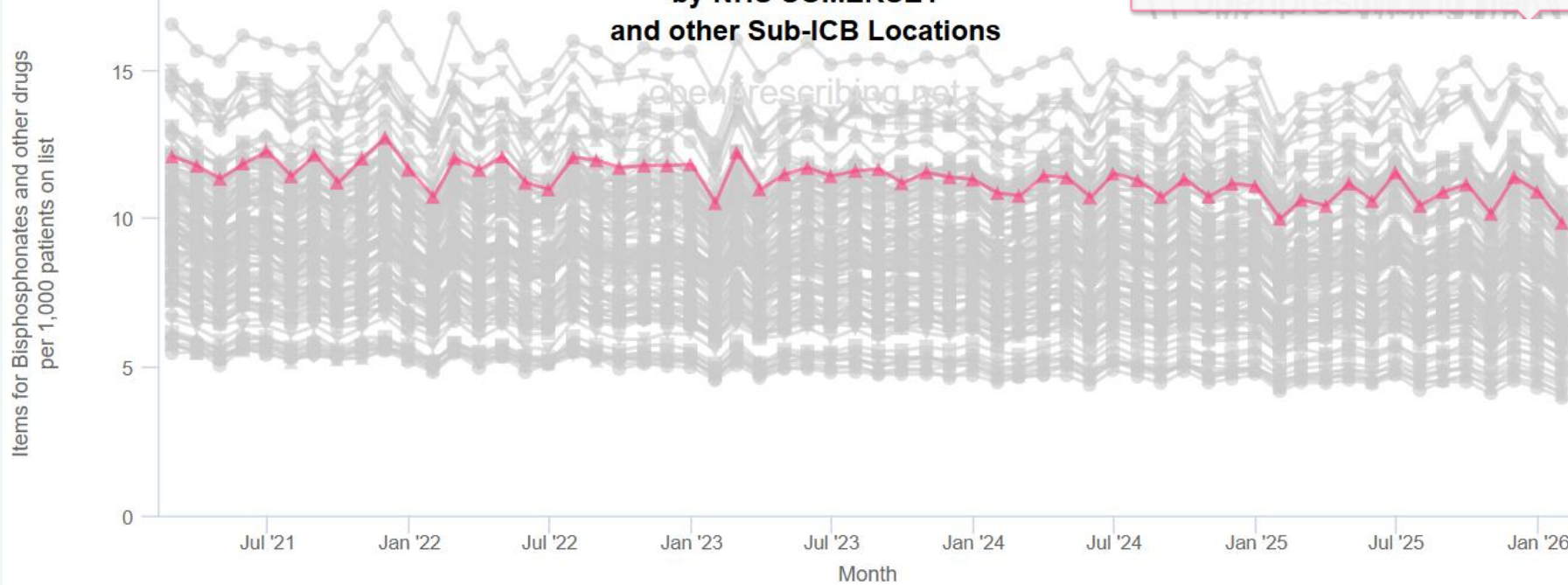
NHS SOMERSET

Items for Bisphosphonates and other drugs in Mar '21: 7,085
 Patients on list in Mar '21: 587,202
 Items for Bisphosphonates and other drugs per 1,000 patients on list: 12.07

Items for Bisphosphonates and other drugs vs patients on list by NHS SOMERSET and other Sub-ICB Locations

NHS SOMERSET

Items for Bisphosphonates and other drugs in Dec '25: 6,913
 Patients on list in Dec '25: 607,841
 Items for Bisphosphonates and other drugs per 1,000 patients on list: 11.37



NHS SOMERSET

Items for Bisphosphonates and other drugs in Feb '26: 5,966
 Patients on list in Feb '26: 606,605
 Items for Bisphosphonates and other drugs per 1,000 patients on list: 9.84



Patients prescribed Calcium and Vitamin D3 or D3 alone with no denosumab or bisphosphonate

12648

Falls History:	Accidental falls	(17 Feb 2020)
	Accidental falls	(31 Jan 2020)
	Accidental falls	(11 Mar 2016)
	Accidental falls	(30 Nov 2005)
	Accidental falls	(28 Nov 2005)
	Accidental falls	(25 Nov 2005)
	Accidental falls	(24 Nov 2005)

Falls History:	Falls	(08 Dec 2023)
	Number of falls in last year	(08 Dec 2023)
	Accidental falls	(16 Oct 2023)
	Falls	(27 Jan 2023)
	Accidental falls	(01 May 2018)

26-Mar-26 **Calcium Carbonate / Vit D (Accrete D3)**

13-Feb-26 **Calcium Carbonate / Vit D3 (TheiCal-D3)**

17 Dec 24	s2342	Closed fracture of the distal radius, unspecified
07 Nov 24	s30..	Fracture of neck of femur

22 Jul 17 **N331N** **Fragility fracture**



Patient with previous fragility fracture and not prescribed bone sparing agent

1141

Falls History:	Accidental falls	(05 Jan 2026)
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Not Specified		
22-Apr-26	Calcium Carbonate / Vit D3 (TheiCal-D3)	1000 mg/880unit chewable tablets (28 tablet)

Falls History:	Accidental falls	(27 Jan 2021)
	Accidental falls NOS	(09 Jun 2003)
	Accidental falls NOS	(22 May 2003)

18-Feb-26	Calcium Carbonate / Vit D (Adcal-D3)
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Patient with diagnosis osteopenia or osteoporosis and not prescribed bone sparing agent

459

30-Apr-26		Adcal-D3 750mg/200unit caplets (Grunenthal Ltd)
15 Feb 25	N330.	Osteoporosis
08 Apr 20	NyuBC	[X]Osteopenia
24 Jan 20	N331M	Fragility fracture due to unspecified osteoporosis

Falls History:	Falls	(11 Mar 2022)
	Falls	(17 Feb 2022)
	Falls	(15 Nov 2021)
	Falls	(05 Nov 2021)
	Falls	(25 Oct 2021)
	Falls	(18 Oct 2021)
	Falls	(14 Oct 2021)
	Falls	(20 Sep 2021)
	Falls	(06 Sep 2021)
	Falls	(02 Aug 2021)



Patient prescribed aromatase inhibitor and not prescribed bone sparing agent
1665

05-May-26	Adcal-D3 chewable tablets tutti frutti (Grunenthal Ltd)	25-Apr-26	Letrozole
05-May-26	Letrozole	25-Apr-26	Calcium Carbonate / Vit D (Natecal D3)



Patient prescribed prednisolone and not prescribed bone sparing agent 2279

01-Apr-26 Calcium Carbonate / Vit D (Accrete D3)

08-Apr-26 Prednisolone E/C Tablet

01-Apr-26 Prednisolone Tablet

Falls History:	Date
Accidental falls	(10 Jul 2024)
Accidental falls	(14 Jun 2024)
Falls	(23 Apr 2024)
Falls	(09 Apr 2024)
Falls	(25 Sep 2022)
Falls	(22 Feb 2022)
Accidental falls	(03 Feb 2019)

20 Sep 19 N330. Osteoporosis



Medicine treatment breaks

- The optimal duration of bisphosphonate therapy is unclear and there are possible side effects of long-term treatment.
- Treatment recommendations vary from three to ten years for oral bisphosphonates and three to six years for intravenous zoledronic acid depending on level of fracture risk.
- A medication review for people having long term bisphosphonate therapy gives the opportunity to consider whether continuing treatment is the best option, based on the benefits and potential risks or if treatment should be changed or stopped.
- The response to treatment may also be evaluated to help determine whether to continue treatment.



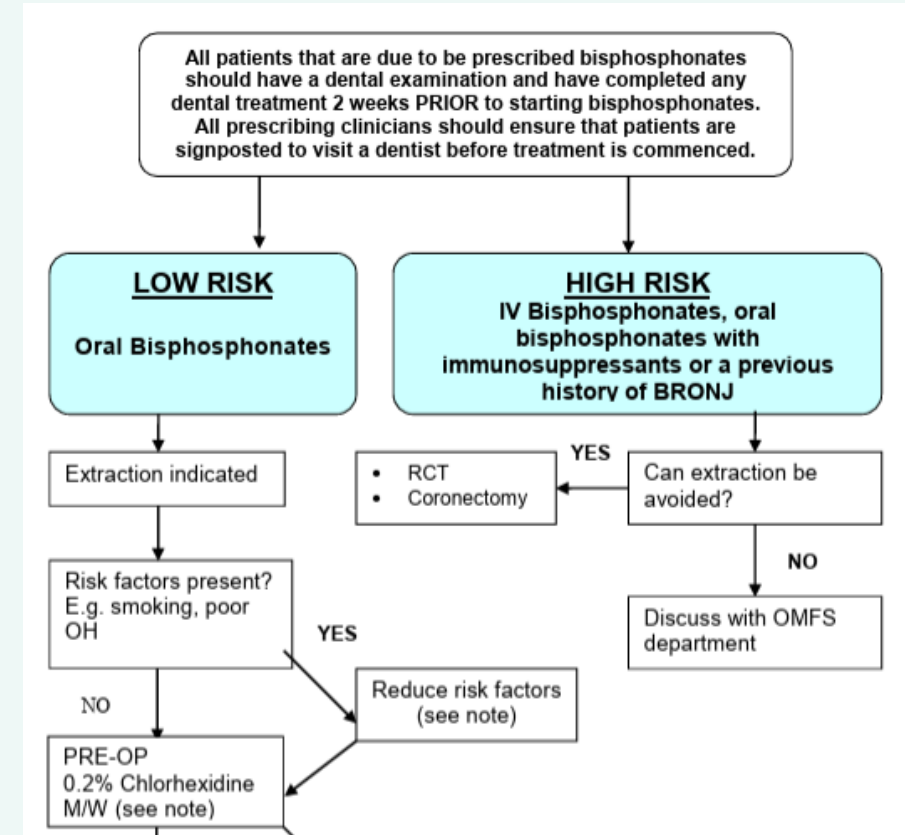
Dental concerns



- During bisphosphonate or denosumab therapy, **encourage all patients to maintain good oral hygiene, receive routine dental check-ups, and report any oral symptoms such as dental mobility, pain, or swelling** (Strong recommendation).
- **In those with severe dental disease who require bisphosphonate or denosumab treatment, timely dental review and dental treatment by an appropriately experienced dental surgeon should be pursued before drug administration, bearing in mind drug treatment should be initiated as soon as possible after a fragility fracture;** a multi-disciplinary team (MDT) approach to discuss individual needs is encouraged (Conditional recommendation).
- **During bisphosphonate or denosumab treatment, although ideally patients should minimise invasive dental procedures where possible, if indicated they can be carried out safely and successfully in most patients.** When dental procedures are required, there are no data available to show whether treatment discontinuation reduces the risk of ONJ. Clinical judgment of the treating physician should guide the management plan of each patient based on individual benefit/risk assessment, ensuring patients continue to access routine dental care (Conditional recommendation).



- There is no supporting evidence that Bisphosphonate-related Osteonecrosis of the Jaw (BONJ) risk will be reduced if the patient temporarily, or even permanently, stops taking bisphosphonates prior to invasive dental procedures since the drugs may persist in the skeletal tissue for years. If a patient has taken bisphosphonates in the past but is no longer taking them for whatever reason (i.e. completed or discontinued the course, taking a drug holiday), allocate them to a risk group as if they are still taking them.
- Whenever possible, patients should be encouraged and counselled to stop smoking. Oral hygiene and periodontal health should be improved prior to any surgical procedures. However, the unnecessary delay or avoidance of appropriate treatment cannot be supported, and each case should be considered on its own merits.





Bone Health

If you have osteoporosis or osteopenia, a simple fall can cause a broken bone.

More than 1 in 3 women and 1 in 5 men will sustain one or more osteoporotic fractures in their life time.

[← Back to Prescribing Guidelines by Clinical Area](#)

Fracture prevention

- Calcium and Vitamin D supplements do not prevent fractures.
- Bone sparing agents reduce fractures in people who are high risk e.g previous fracture, osteoporosis, osteopenia, prescribed corticosteroid (>7.5mg prednisolone or equivalent per day for >3 months) or aromatase inhibitor.
- DEXA scans are not required before commencing treatment with a bone sparing agent.
- Calcium and vitamin D can be prescribed alongside bone sparing agent to mitigate the risk of hypocalcaemia.
- People who require a calcium and/or vitamin D dietary supplement and are not prescribed a bone sparing agent are asked to purchase over the counter and should not be prescribed as per NHSE guidance (exceptions e.g. patients post bariatric procedures and malabsorption).
- The CQC requires adult social care providers to have systems in place that enable residents to access over the counter products.

NICE Osteoporosis: risk assessment, treatment, and fragility fracture prevention update due July 2026

NHS Somerset Joint Formulary Bisphosphonates and other drugs affecting bone metabolism

NICE	+
NOGG	+
NHS Somerset DEXA scan policy	+
NHSE Policy guidance: conditions for which over the counter items should not be routinely prescribed in primary care	+
CQC: Over the counter medicines and homely remedies	+
Vitamin D guidance	+

