

Formulary Guidance: Management of Malignant Hypercalcaemia

THINK: is this patient hypercalcaemic:

Hypercalcaemia in malignancy is common – 20-30% of patients with advanced cancer
Common cancers: breast, myeloma, lung (squamous) carcinomas, renal, prostate and lymphoma
Not always bone metastases – mediated by parathyroid hormone-related protein secretion from tumours
Non-specific symptoms: malaise, lethargy, nausea
Commonly: confusion/ delirium, dehydration, constipation, potential bone pain
Likely symptomatic with a corrected calcium above 3mmol/L

TREAT urgently:

If the patient is symptomatic, their serum calcium is elevated and it is clinically appropriate.

Investigations to include serum ADJUSTED calcium and renal function

REHYDRATE

With IV Sodium chloride 0.9% according renal function, cardiovascular status and level of dehydration

BISPHOSPHONATE

Once rehydrated with at least 1-2 litres, give ZOLEDRONIC ACID 4mg IV over 15mins (diluted in 100mls sodium chloride 0.9% if using concentrate of 4mg in 5ml)

It is important to note that there is no requirement for dose reduction of zoledronic acid for the management of Tumour Induced Hypercalcaemia if the serum creatinine is <400micromol/l
([Zoledronic Acid SmPC](#) accessed 27/3/2024)

Consider post-hydration depending on renal function and fluid status

If renally impaired, contact pharmacy for advice regarding use of disodium pamidronate

REVIEW

Maximal response to bisphosphonate is 4-7 days

If, after this time, calcium has not reduced – consider further dose of bisphosphonate where clinically appropriate.

Consider referral to specialist palliative care

Written by: DBTH Specialist Palliative Care Team

Approved by Trust Drug and Therapeutics Committee: July 2024

Review Date: July 2027