CONCLUSION
Severe hypercalcaemia of pHPT can be successfully managed with aggressive treatment and close monitoring. Need for dialysis may be avoided but such patients should undergo parathyroidectomy as soon as possible.

PA-A-34

A CASE OF DENOSUMAB-INDUCE HYPOCALCEMIA:
A SEVERE AND PROLONGED CONSEQUENCES

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INTRODUCTION
Denosumab is known to cause abnormalities in calcium homeostasis. The majority of such cases have been described in patients with underlying metastatic cancer, chronic kidney disease or vitamin D deficiency. History of bariatric surgery could also compound the effect of hypocalcemia necessitating intravenous treatment and prolong high dose oral supplementation.

CASE
We present a 61-year-old female with a 6-day history of progressive worsening limb numbness, tingling sensation and intermittent muscle cramps. She had gastric sleeve surgery done 20 years ago. Her regular medication includes calcium, vitamin D and iron supplement. Further history uncovered a denosumab treatment for osteoporosis 1 week ago at a private hospital.

Biochemistry revealed severe hypocalcemia with adjusted calcium of 1.33 mmol/l, mild hypophosphatemia at 0.65 mmol/l, with normal magnesium and renal function. ECG showed prolonged QT interval. PTH level was high at 34.6 pmol/l and 25-OH-vitamin D was insufficient at 33 mmol/l.

She required multiple courses of intravenous calcium gluconate bolus and infusion due to retractable severe hypocalcemia while titrating up her oral supplement in the ward. She was discharged after 8 days with serum calcium around 1.90 mmol/l. At clinic follow up 5 days later, her serum calcium decreased again to 1.64 mmol/l requiring further iv calcium infusion and oral supplement adjustment.

After 2 months, she still requires high dose replacement with 1.5 ug calcitriol twice daily, 1 g calcium carbonate thrice daily and vitamin D3 replacement to maintain normocalcemia.

CONCLUSION
This case report highlights the importance of screening for risk factors for iatrogenic hypocalcemia before initiating denosumab treatment particularly for patients with a history of bariatric surgery. Vitamin D should be adequately replaced prior to treatment and serum calcium levels should be closely monitored post treatment.

PA-A-35

DOSE UP-TITRATION OF EMPAGLIFLOZIN AMONG TYPE 2 DM PATIENTS UNCONTROLLED ON EXISTING ORAL ANTIDIABETIC AGENTS

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INTRODUCTION
In most trials involving empagliflozin, the effect on HbA1c reduction was based on concurrent use of 2 doses of the drug without dose titration. This study aims to determine the proportion of patients who need to up-titrate empagliflozin from 10 mg to 25 mg to achieve the desired A1c reduction.

METHODOLOGY
T2DM patients uncontrolled on existing oral glucose-lowering drugs were given empagliflozin 10 mg daily for 3 months. Those who achieved a reduction in HbA1c more than 0.5% from baseline will continue the same dose for another 3 months while those those who had HbA1c reduction of 0.5% or less will be given 25 mg daily for 3 months.

RESULTS
A total of 55 (67.9%) patients had significant HbA1c reduction >0.5% after 3 months on 10 mg empagliflozin (non-titration group), while 26 (32.1%) patients required up-titration of empagliflozin to 25 mg daily for another 3 months (up-titration group). There was no further significant reduction in mean HbA1c from 7.50% (range: 7.1 to 8.15) to 7.45% (range: 6.78 to 8.13), p=0.574 after 3 months of 25 mg empagliflozin. At 3 months therapy with empagliflozin 10 mg, 55 (67.9%) patients achieved mean HbA1c reduction of >0.5% from baseline 7.8%(range: 7.5 to 8.7) to 6.95% (range: 6.53 to 7.38), p<0.001 and remains stable after the continuation for another 3 months.