



Supra-Regional Assay and Advice Service (SAAS) for Calcium and Bone Metabolism

S McMurray, H Barrett, and A Chipchase

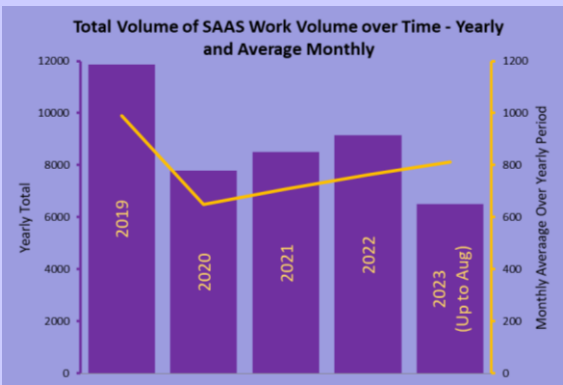
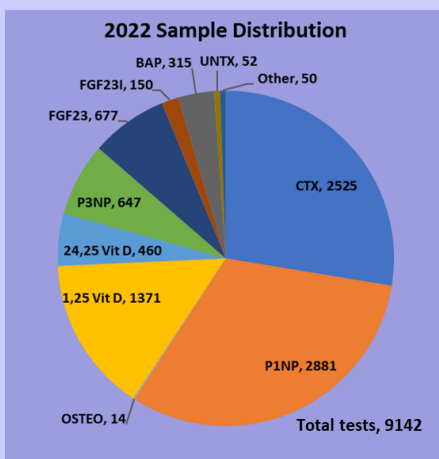
Norfolk and Norwich University Hospital, Clinical Biochemistry and Immunology, Norwich, United Kingdom

Overview of Our Service

- SAAS laboratories exist to provide specialist assays and clinical advice to users throughout the UK, and beyond, in order to benefit from expert knowledge
- Our SAAS offers a range of analyses for assessing the bone remodelling process
- We are an international service, regularly receiving samples from throughout Europe, and beyond
- Within the UK, we receive samples from around 260 UK hospital trusts/health boards
- Markers of bone remodelling can be measured in serum, plasma, or urine
- These "bone markers" have a variety of roles in the management of fracture risk, including targeting or modifying therapy
- Changes in bone remodelling, through targeted therapy, have been shown to lead to fracture risk reduction
- Understanding individual patient bone remodelling, prior to initiating therapy, allows the selection of the optimal treatment choice for them
- In addition, biochemical monitoring can aid patient understanding of their condition, and therapeutic adherence

Key groups who benefit from our service include those with:

- Osteomalacia, including those with disorders of vitamin D metabolism
- Osteoporosis
- Paget's disease of bone
- Bone disease in malignancy, including tumour-induced osteomalacia (TIO)
- Renal bone disease, including recurrent stone formation
- Disorders of growth, including hypophosphatasia and disorders of collagen synthesis



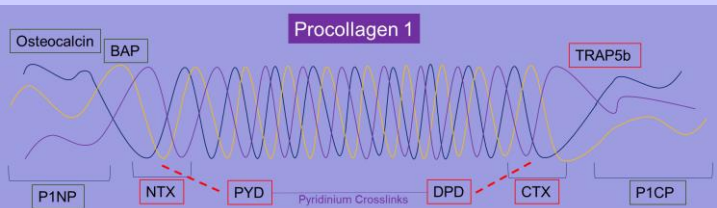
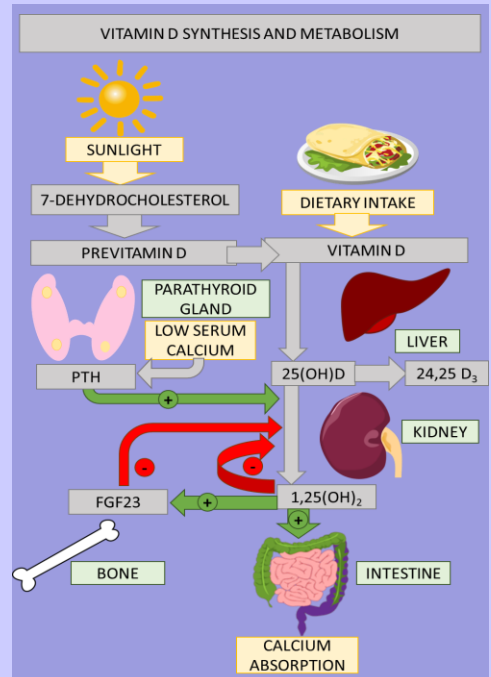
Clinical Advice Service

- Our users contact us for clinical advice in the interpretation of specialist bone marker results, and in diagnosing rare and unusual bone disease
- We are active members of a Norfolk-wide multidisciplinary team review of parathyroid patients referred for surgery
- We are key members of the East of England specialist rare bone disease network group (ERBoN)
- Our group is active in research into the pathophysiology of bone and bone-related disease, collaborating closely with research teams at University of East Anglia (UEA), and further afield
- We provide a sample-swap facility to other laboratories assaying specific bone markers, to ensure ongoing quality of analysis and clinical results

Tests

The full range of our SAAS tests are:

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| <p>ROUTINE</p> <ul style="list-style-type: none"> • 1,25-dihydroxyvitamin D • 24,25-dihydroxyvitamin D • 25-hydroxyvitamin D • CTX (C-terminal telopeptides of type 1 collagen) • P1NP (Procollagen Type 1 N-terminal propeptide) • Osteocalcin • Bone-specific alkaline phosphatase • Fibroblast growth factor-23 (FGF23) (Both C-terminal and intact FGF23) • PIIIINP (Procollagen Type 3 N-terminal propeptide) • Urine NTX (urine N-terminal telopeptides of type 1 collagen) • Urine deoxypyridinoline (DPD) and pyridinoline (PYD) | <p>AD-HOC/RESEARCH-BASED</p> <ul style="list-style-type: none"> • TRAP5b • Osteoprotegerin, and associated antibodies • PTH (1-34) • Vitamin D-binding protein • Sclerostin • Cathepsin K • Ellsworth-Howard test, utilising urine and plasma cAMP |
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Contact Us

- Details of the tests we provide can be found on our website: www.easternpathologyalliance.nhs.uk
- Alternatively, we can be contacted via email at: SAASBoneMetabolism@nuh.nhs.uk