

## Myeloma Service

### Background

**Myeloma** is a type of blood cancer that originates from **plasma cells** of the lymphoid cell lineage. Plasma cells secrete immunoglobulins, which are the antibodies essential to the adaptive immune response. Myeloma occurs when a single neoplastic (cancerous) plasma cell in the **bone marrow** proliferates into many clonal B cells. These cells produce a different type of antibody known as paraprotein, which is non-functional and secreted in excess.

Myeloma accounts for approximately 2% of cancer cases and 15% of all blood cancers. It is frequently referred to as 'multiple myeloma' as it affects multiple areas of the body where bone marrow is active.

### Test information

Myeloma samples will be tested by fluorescent in situ hybridization (FISH)\* for the detection of IGH translocations, TP53 deletions and 1p (CDKN2C) deletions 1q (CKS1B) gains.

### Referral Criteria

All requests should be made on an appropriate request form available at the AWMGS website [www.medicalgenomicswales.co.uk](http://www.medicalgenomicswales.co.uk).

\*Samples that are received by AWMGS for myeloma testing will be stored unless a diagnosis of myeloma has been confirmed by the consultant.

#### Contact Details

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#### TAT (Calendar days)

21

CD

#### Sample Requirements

**Bone marrow** is preferred - send in sterile transport medium supplied by laboratory or in a lithium heparin blood tube.

**Blood** in lithium heparin

Please label samples with three identifiers and date of collection

**All samples must be accompanied by a completed request form**

Consent for testing and sample storage is assumed when the request is received – it is the responsibility of the referring clinician to ensure that appropriate consent has been obtained.