

Paraproteinaemia

Background

Conditions associated with paraprotein production include:

- Monoclonal gammopathy of undetermined significance (MGUS)
- Multiple myeloma
- Waldenström’s macroglobulinaemia

Paraproteins may also be seen in CLL, NHL, or amyloidosis.

MGUS is a **diagnosis of exclusion** and is common:

- ~3% of people aged >50 years
- ~5% aged >70 years
- ~7.5% aged >85 years

Most cases are asymptomatic and discovered incidentally. The overall risk of progression to myeloma is approximately **1% per year**, remaining constant over time.

Important:

- Do not refer patients with **raised immunoglobulins** alone if there is **no monoclonal paraprotein band** on serum electrophoresis.
- A **polyclonal gammopathy** indicates a non-specific immune response and does not require haematology referral.

Risk Group	Criteria	20-Year Risk of Progression
Low Risk	Paraprotein <15 g/L, IgG subtype, normal FLC ratio	5%
Low-Intermediate risk	IgA or IgM subtype (<10 g/L) OR abnormal FLC ratio	21%
High-intermediate risk	IgA or IgM subtype (<10 g/L) AND abnormal FLC ratio	37%
High Risk	IgG >15 g/L or IgA/IgM >10 g/L WITH abnormal FLC ratio	58%

Serum Free Light Chains (sFLC)

Light chains may be elevated in several conditions.

- Both kappa and lambda chains rise in **renal impairment**.
- Borderline abnormalities should be **repeated once**.
- **Refer** if kappa or lambda light chains are **>200 mg/L**.
- If the sFLC ratio is **clearly abnormal (>4 or <0.25)**, refer to a **myeloma clinic via 2WW**.
- In renal impairment, the adjusted reference range for sFLC ratio is **0.37 - 3.10**.
- sFLC testing **does not replace** serum protein electrophoresis or other standard investigations.

Paraproteinaemia - GP Assessment & Referral Flowchart:

