Rheumatology Biologic Drug Monitoring Recommendations

Testing for infliximab and adalimumab drug levels and neutralising antibodies will be available from November 2017 via QEUH, Glasgow. This includes biosimilar drugs.

Indications for testing include:

- 3-6/12 after initiation of therapy to guide drug dose/infusion time interval
- Anti-TNF failure of response to determine if primary or secondary failure due to immunogenicity
- To guide dose/interval changes for patients where drug tapering is being considered (or escalation where inadequate dosing is suspected)

Practicalities of testing

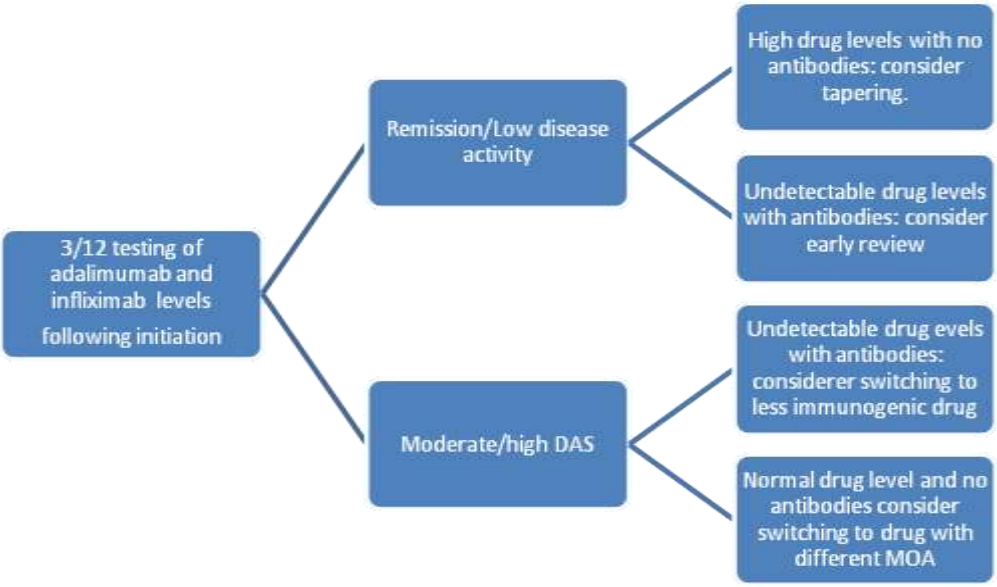
- Serum sample required ideally for trough level: pre-infusion for infliximab and no earlier than 3-5 days prior to injection date for adalimumab
- No special preparation required for samples which should be sent to biochemistry at QEUH.
- TRAK request forms have been designed, but require local Board implementation
- Sample turnaround anticipated 2 weeks.

Interpretation

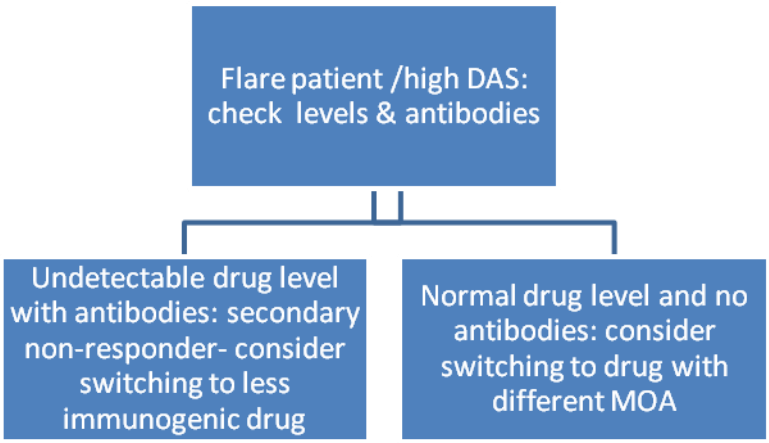
Analyte	Lower limit of assay	Upper limit of measurement	Units
Adalimumab	0. 4	14	ug/mL
Infliximab	0.3	14	ug/mL

- Levels below the lower limit suggest secondary failure of response or poor compliance. Presence of neutralising antibody may be present in the former.
- Levels above the upper limit suggest overtreatment.

Interpretation: 3-6/12 after initiation of therapy to guide drug dose/infusion time interval



Interpretation: anti-TNF failure of response



Interpretation: considering dose reduction