Screening & Monitoring for clozapine induced tachycardia & myocarditis

This flowchart is to help diagnose patients who may be at risk of developing myocarditis and should be used for all patients commencing on clozapine. See over for frequently asked questions.

**Patient starting clozapine (including restarts)**
(usual baseline checks and routine bloods apply)

**Baseline**
- Troponin I or T (see FAQ 1 and 2)
- CRP
- ECG
- Echocardiography if suspected **underlying heart disease**
(see definition overleaf)

**15 mins after 1st dose and hourly for first 6 hours (for 2 days) and before each dose during dose increases or until stable.**
- BP & Pulse
- Body temperature
- Respiration rate

**Once every week for first 4 weeks and at 8 weeks and if retitrating**
- CRP
- Troponin I or T

**Ask patients (and advise carers if outpatients) to report** feeling unwell and any symptoms of illness including fever, cough, chest pain, shortness of breath, diarrhoea, vomiting, nausea, sore throat, myalgia, headache, sweatiness, and urinary discomfort or frequency

**If the patient develops:**

**Signs or symptoms of unidentified illness**
(See above) OR
- HR > 120 bpm or increased by > 30 bpm (Repeat ECG)
- CRP 50-100 mg/l

**Continue clozapine with increased monitoring**
Consider slowing down titration if symptomatic.

Check troponin and CRP daily and monitor patient for developing illness. (See above)

- If troponin rises above normal local laboratory levels seek urgent advice from cardiologist and perform urgent echocardiogram
- If other features do not normalise within 4 weeks, arrange echocardiogram and refer to cardiologist.

**Use of beta blockers**
They can exacerbate postural hypotension. Do not use routinely, consider small doses if patient significantly symptomatic with palpitations.

**Troponin elevated above laboratory normal level or rises 20% above baseline value**
- OR
- CRP > 100 mg/l

**Cease clozapine**
Perform urgent Echocardiogram
Refer to cardiologist
FREQUENTLY ASKED QUESTIONS

Q: Can we start clozapine before obtaining CRP and Troponin results?
A: Yes

Q: If we start clozapine without the baseline results, but when we get the results the troponin is raised, what should we do?
A: If the troponin is raised you should cease clozapine, even if there are no other symptoms and ask for advice from cardiology.

Q: If the baseline CRP is 50-100mg/l should we continue clozapine and perform daily CRP as per chart?
A: Yes

Q: If the baseline CRP is more than 100mg/l should we stop clozapine?
A: Yes, even if no other symptoms are present. You should also test for myocarditis.

Q: If a patient, who has a normally high resting baseline heart rate e.g. 110bpm, rises to say 130bpm during clozapine titration, would this be ok as it has not increased more than 30bpm?
A: Yes, as long as there are no other symptoms continue as per guidance and increase monitoring.

Q: What is the definition of ‘suspected underlying heart disease’?
A: “Symptoms or signs of structural or ischaemic heart disease: this would include past history of heart disease, heart failure or valvular heart disease, abnormal ECG, detection of a heart murmur or detection of heart failure”.

Q: If a patient suspected of having underlying heart disease, refused an Echocardiogram, should we commence clozapine?
A: Yes, clozapine can be started and the patient should be monitored as per the guidelines.

Q: The SPC does not require additional monitoring; will I be held responsible if I choose not to undertake this?
A: This is guidance and so it would be good practice to follow it as per all other approved guidance.

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