

A basic guide to telemetry for junior doctors working in Cardiology

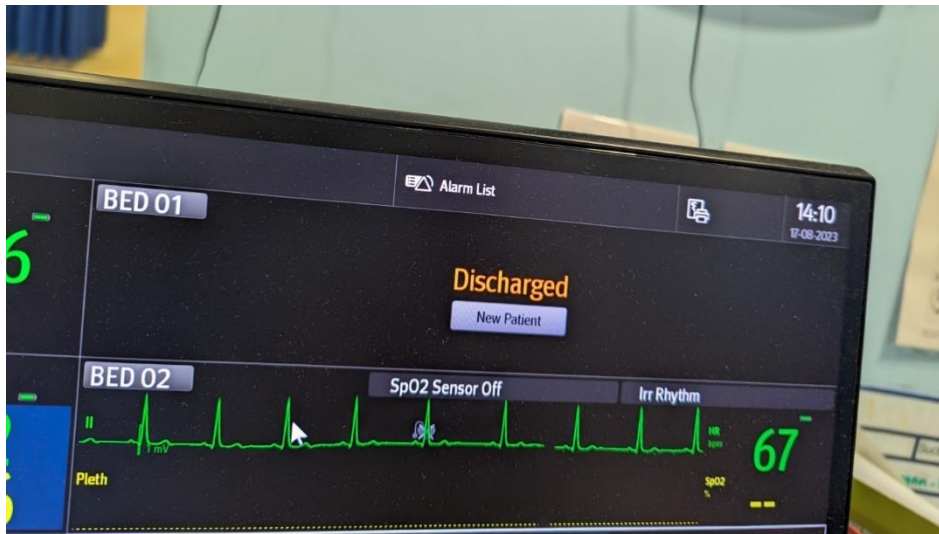
Cardiac monitoring is in use on all 3 Cardiology wards at UHP. This is mostly delivered by use of the *Mindray* telemetry systems, and all wards have the facility for central monitoring (monitor visible at the nurses' stations). Many of your patients will be monitored however this should not be the default for all. Whilst it is invaluable for safe observation of patients at risk of dysrhythmias, it can have adverse effects by restricting mobilisation and increasing the risk of falls and delirium in susceptible patients. Its use should therefore be rationalised and regularly reviewed to ensure ongoing monitoring remains indicated.

There is a **protocol** available which illustrates some of the common indications as well as suggested durations for monitoring. This is for guidance and to prompt review rather than to be followed to the letter and it is good practice to discuss with a senior prior to discontinuing monitoring.

The ward nurses generally operate the monitoring and will respond to any alarms, highlighting any acute concerns to you. It is good practice to routinely review the monitoring when doing your ward rounds to see if there have been any issues and assess whether it is still needed. There will also often be situations where the consultants want to know specific information from a patient's telemetry. Whilst the nurses are often able to help with this, they may be busy with other tasks so it is useful to have a working knowledge of how to use the central monitoring station and view the patient data, so that you can be more independent. The alarm analysis is also algorithm based so the ECG trace of any potentially significant arrhythmia alarms should be reviewed and not taken at face value e.g., any tachycardia above a certain rate and QRS duration will automatically flag as VT regardless of morphology.

There are **3 main functions** of the telemetry you will commonly use. See the screenshots below for a 'how to' guide as to how to best access this information.

First, select patient by double clicking over their window on the central monitoring station.



This will open their monitoring window. Click on 'review' to access their monitoring data.



Useful review options

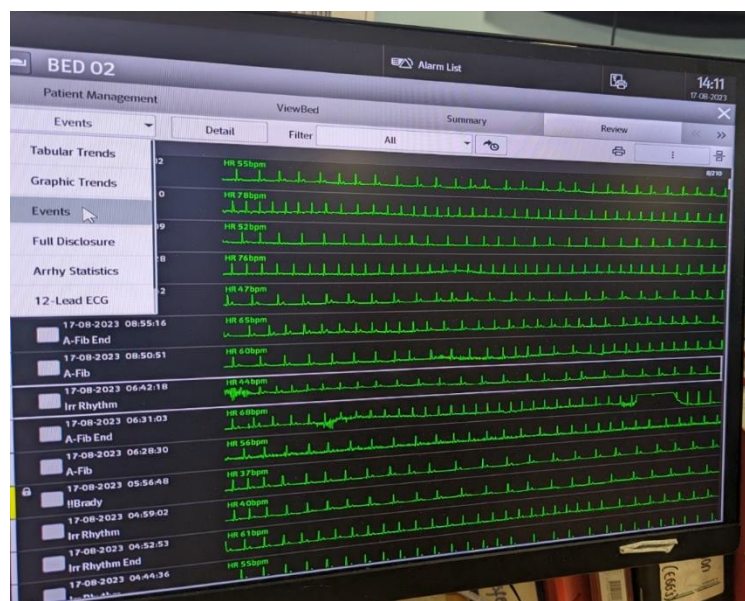
1. **'Trend review'** – Useful to review the general heart rate trend for patients with stable tachyarrhythmias or bradycardias. This is also a quick way of confirming there haven't been any significant dips or peaks in patients who are otherwise well, if you aren't anticipating any issues.

Whilst in the 'review tab', click on the drop-down menu in the top left and select 'graphic trends'. The green line represents heart rate over time and is useful for broad assessments of rate spread in tachyarrhythmia/bradyarrhythmia.



2. **'Event review'** – This will allow you to quickly scroll through the rhythm strips corresponding to any alarms for the patient. Useful to review any events that the nurses have flagged up at the morning board round for example.

Whilst still in the 'review' tab, select 'events' from the dropdown menu in the top left. This will give you recorded strips from every time the monitor alarmed. Scroll up and down to view less recent alarms.



3. **'All data'** – This is a continuous log of all the patients monitoring which you can scroll through. You can use this to review the rhythm at any one single point in time. Useful to go back and see what was going on at a specific time e.g. during a MET call or syncopal episode (if these didn't trigger an arrhythmia alarm already!).

Whilst in the review tab, select 'full disclosure' from the dropdown in the top left. This provides the patient's entire rhythm history, starting with the most recent. Scroll up with the keypad to view the rhythm at any specific time. Once your desired time is on screen you can click on it to view in full screen.

