

Rate versus Rhythm Management - Guidelines for Medical Professionals

In patients who suffer with Atrial Fibrillation a question is asked as to whether it would be in their best interests to be looked after in the new stable rhythm of Atrial Fibrillation or is it necessary to try to return the heart to its normal 'Sinus Rhythm'. This question is termed '**Rate versus Rhythm Management**'.

Patients who suffer from AF may have physical symptoms of palpitations, breathlessness, lethargy or loss of exercise tolerance (tiredness at an earlier point of activity) or they may have no symptoms. It does not matter how symptomatic the AF is for the patient's risk of stroke to be increased.

Although it would seem to make sense that if a patient were returned to sinus rhythm from Atrial Fibrillation the risk of stroke would return to normal, this has not proved to be the case based on study evidence. The risk would seem to depend just on the fact that the person had once had Atrial Fibrillation. This is because the risk of further AF (often symptomatic) is high. Risk of stroke is small in patients with a normal heart at a young age.

Due to this inability to abolish the stroke risk with a return to sinus rhythm, if a person's symptoms can be controlled with medication while leaving their rhythm unaltered this is a simpler option.

If the heart has an acceptable rate, probably best judged by monitoring over a 24-hour period through ambulatory rhythm monitoring, and they are asymptomatic then only the medication for the reduction of stroke risk needs to be considered.

If the heart is found to have a rapid rate at rest or during activity, then a person will need medication to control the heart rate. This usually starts with either a beta-blocker or a rate-limiting Calcium Channel Blocker. If,

by itself, the first choice medication does not achieve the desired results, then the alternative option should be considered. If the alternative cannot be given for other reasons, usually intolerance or the presence of a contraindication, then digoxin may be added.

If a patient is relatively immobile or rate control during activity is not required then digoxin still has a significant role in rate management. If digoxin is to be considered then the assessment of renal function and serum potassium prior to starting is required. Digoxin levels are of little routine use. In the ongoing assessment of the patient questioning for side effects of digoxin such as nausea, vomiting or the presence of visual disturbance (generally described as a yellow halo around people) should be taken. The presence of new bradycardia is also a potentially significant indicator of toxicity. If mild side effects are suspected then the digoxin should be reduced or discontinued rather than serum levels taken, as many elderly patients can suffer side effects even when their digoxin serum level are observed in an acceptable range. If digoxin toxicity is suspected then the drug should be stopped immediately and discussion with the local acute hospital or cardiologist considered.

If, despite a combination of rate reducing medication, symptoms or rate cannot be controlled then a return to sinus rhythm needs to be considered if this is thought to be achievable. This will need to be discussed with a heart rhythm specialist.

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