

Anticoagulation of Patients with Mechanical Heart Valves

A Joint Statement from the British Heart Valve Society (BHVS), the Society for Cardiothoracic Surgeons (SCTS), the British Society of Echocardiography (BSE), the Primary Care Cardiovascular Society (PCCS), the British Congenital Cardiac Association (BCCA) and the British Cardiovascular Society (BCS)

Dear Colleague

On July 14th 2021, a National Patient Safety Alert was issued by NHS England relating to choice of anticoagulant drugs prescribed to patients with mechanical heart valves.^[1] This was triggered by cases presenting to hospital of patients who had been switched from anticoagulation with warfarin to a novel oral anticoagulant (NOAC).

As a result of the Coronavirus pandemic and the national lockdown in 2020, some patients experienced significant difficulty in continuing blood monitoring of the international normalised ratio (INR). Thus, guidance was provided for patients who could be safely switched from warfarin to newer oral anticoagulant drugs – this did not include patients with mechanical heart valves.^[2]

The NPSA stated that fourteen patients with mechanical heart valves have been identified who had been switched from warfarin to alternative anticoagulant drugs – one patient was switched to a low molecular weight heparin (LMWH) and thirteen patients to a NOAC. On subsequent analysis of patient records in primary care, a further 750 patients have been identified who are coded as having a mechanical heart valve and prescribed a NOAC.

We wish to confirm and re-iterate to managers, commissioners, healthcare professionals and patients that, at present, none of the novel oral anticoagulant drugs (dabigatran, edoxaban, apixaban & rivaroxaban) are licensed for use in patients with mechanical heart valves and, in fact, they are contra-indicated in patients with mechanical valves as per both European^[3] and North American^[4] clinical practice guidelines because of a higher incidence of thrombo-embolic complications when compared to warfarin.

LMWH injections can be used as an alternative to warfarin in certain clinical settings, under direct supervision of a responsible physician. As an example, patients with a mechanical valve who are pregnant or who have scheduled surgery may receive LMWH injections during a defined time period, after which warfarin therapy would be re-commenced.

Any patients with mechanical heart valves who are receiving novel oral anticoagulants instead of warfarin should be reviewed urgently. Any who were switched to a NOAC without explicitly documented, prior discussions involving their responsible valve specialist, should be converted to warfarin therapy as a priority. In case of uncertainty, urgent discussion with a valve specialist is needed. Any patients who were switched to LMWH injections due to the pandemic should also be seen to consider resumption of anticoagulation with warfarin.



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References

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