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# ACCEPTED MANUSCRIPT

## QCM-D sensor for the dose management of Apixaban in replacement

#### surgery

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Highlights

- QCM-D superiority over standard equipment for dose management of apixaban.
- The  $\Delta f/\Delta\Gamma$  of the QCM-D-aPTT assay copes the clinical challenge.
- The first report of the dose management of apixaban in replacement surgery.
- The first report for thrombin test for real patients' samples application on QCM-D.
- A new strategy for faster injection of smaller sample volumes.

### Abstract

Apixaban has been recently permitted for medication and the clinics lack an antidote for overturning the drug's effect. We present the first report of the safe dose management of

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