

TARGETED THROMBOPROPHYLAXIS IN KNEE ARTHROPLASTY AN AUDIT OF 5544 PATIENTS

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Background

Thromboprophylaxis in knee arthroplasty is topical, controversial and extremely varied. It is our practice to employ a targeted strategy with all patients receiving mechanical thromboprophylaxis (Foot Impulse System, OPED UK), unless contraindicated and only high-risk patients (10%) receiving additional chemical treatment. High-risk patients are considered as patients receiving total knee arthroplasty with at least one additional risk factor.

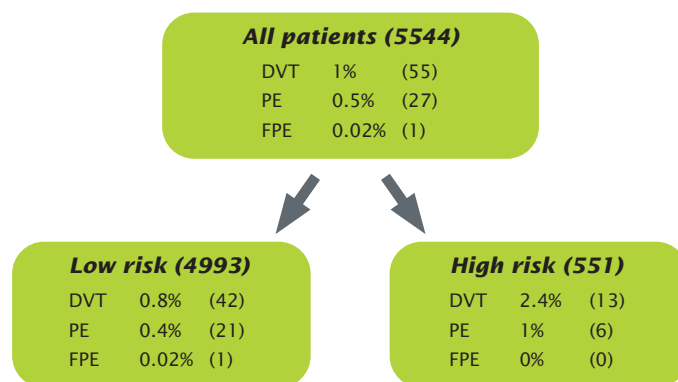
Results

Our venous thrombotic event (VTE) rates were as follows: symptomatic DVT 1%; symptomatic PE 0.49% and fatal PE 0.02%.

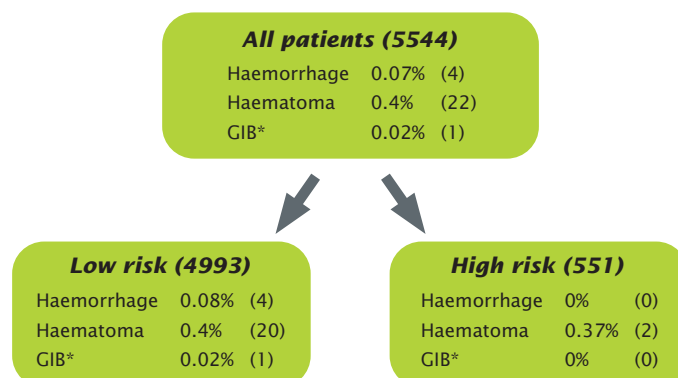
Post-operative haematoma rate requiring surgical evacuation was 0.40%; and 0.07% of patients required post-operative blood transfusion. There were no statistically significant differences in these rates when patients were stratified for type of arthroplasty / level of risk.



Symptomatic VTE Rates



Bleeding Complication Rates



Methods

Eleven year data was extracted from our local database (01/10/1999 - 01/10/2010). This included 5265 primary operations (4383 total-knee-replacements (TKRs), 754 unicondylar-knee-replacements (UKR), 128 patella-femoral-joint-replacements (PFJR) and 279 revision TKRs. Patients were followed up in a dedicated joint review clinic at 2, 6, 12 and 52 weeks post-arthroplasty and then yearly. Outcomes measured were: symptomatic DVT, symptomatic PE and post-operative complication.

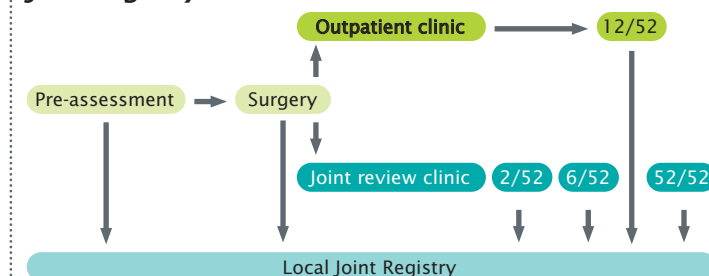
Comparison with Dabigatran & Rivaroxaban

	RESULTS IN OUR TRUST	RESULTS FROM TRIALS ^{1,2}
Patients	5544	15559
DVT	1%	0.2 - 1%
PE	0.5%	0.1 - 0.4%
FPE	0.02%	0.1 - 0.3%
Haemorrhage	0.07%	0.2 - 0.3%
Haematoma	0.4%	1.7 - 1.8%

Conclusions

The VTE rate in our series is comparable to recent studies where all patients have received chemical thromboprophylaxis. We believe that our targeted strategy, where mechanical thromboprophylaxis alone is used in the majority of our patients is effective, results in lower morbidity and at reduced cost.

Patient journey with upload of data into local joint registry



* GIB = gastrointestinal bleedings

¹ Friedman RJ, Dahl OE, Rosencher N, et al. RE-MOBILIZE, RE-MODEL, RE-NOVATE Steering Committees. Dabigatran versus enoxaparin for prevention of venous thromboembolism after hip or knee arthroplasty: a pooled analysis of three trials. *Thromb Res.* 2010 Sep; 126(3): 175-82.

² Turpie AG, Lassen MR, Eriksson BI, et al. Rivaroxaban for the prevention of venous thromboembolism after hip or knee arthroplasty. Pooled analysis of four studies. *Thromb Haemost.* 2011 Mar; 105(3):444-53.