EDITORIAL

Adherence to anticoagulants suboptimal in patients with AF

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BOTH ADHERENCE TO, AND PERSISTENCE WITH, ORAL ANTICOAGULANT (OAC) THERAPY IN PATIENTS with atrial fibrillation (AF) is poor, a UK study has found.[1]

The authors analysed data from The Health Information Network database between 2011 and 2016. The database includes longitudinal, anonymised electronic health records from more than 500 general practices in the UK.

Individuals aged 18 and over with a new diagnosis of non-valvular AF and a first prescription for an OAC on or after the date of diagnosis were eligible for inclusion in the study.

Overall, 36,652 individuals, mean age 74.4 years (45% women), with incident AF met the inclusion criteria for analysis.

Cardiovascular comorbidities were common: 62.6% had hypertension and 71.8% hypercholesterolaemia, median CHA_2DS_2-VASc score was 3. Polypharmacy was also common, the median number of drugs was 6.

Adherence (taking drugs as prescribed) for all OACs was 55.2% (95% CI: 54.6-55.7%). Adherence was lowest for vitamin K antagonists (VKA) and highest for dabigatran. Individual rates were as follows:

Adherence rates

- All OACs 55.2% (95% CI: 54.6-55.7%)
- VKA 51.2% (95% CI: 50.6-51.8%)
- Dabigatran 66.5% (95% CI: 63.7-69.2%)
- Rivaroxaban 63.1% (95% CI: 61.8-64.4%)
- Apixaban 64.7% (95% CI: 63.2-66.1%)

One-year persistence (continuation of drugs) for all OACs was 65.9% (95% CI: 65.4-66.5%). Persistence was lowest for dabigatran and VKA and highest for apixaban. However, persistence declined over three years for all drugs. Individual rates were as follows:

One-year persistence rates

- All OACs 65.9% (95% CI: 65.4-66.5%)
- VKA 63.4% (95% CI: 62.8-64.0%)
- Dabigatran 61.4% (95% CI: 58.3-64.2%)
- Rivaroxaban 72.3% (95% CI: 70.9-73.7%)
- Apixaban 78.7% (95% CI: 77.1-80.1%)

Increasing comorbidity was associated with reduced likelihood of non-adherence and non-persistence across all OACs. The number of drugs being taken was not associated with non-adherence.

The rates of primary non-adherence i.e. stopping after the first prescription, non-adherent non-persistence and persistent adherence were 3.5%, 26.5% and 40.2%, respectively, differing across OACs.

Direct oral anticoagulants (DOACs), such as dabigatran, rivaroxaban and apixaban, are increasingly prescribed for thromboprophylaxis in AF. These drugs are at least as efficacious as VKA, if not more so, and are simpler to administer with no requirement for regular blood tests or variable dosing regimens. As such one would imagine that adherence rates to OAC might improve with these new therapeutic options. However, although the DOACs generally fared better than VKA both adherence and persistence were suboptimal for all OACs.

'Adherence for all oral anticoagulants was 55.2% and one-year persistence was 65.9%'

This study showed that further work is required to understand why patients fail to take these drugs as prescribed and why they discontinue them over time. For drug therapies to be effective, both adherence and persistence are prerequisites. OACs are usually lifelong therapies. Certainly, overall adherence rates of 55% and persistence of 66% are not ideal if we wish to reduce the burden of thromboembolic events in patients with AF.

It remains important at both the initiation of these drugs and at medication reviews to stress to patients the risks of non-compliance, in particular the devastating impact that an AF-related stroke can have. These strokes are often more extensive and disabling than other strokes. The role of practice and community pharmacists should also not be overlooked in improving compliance.

REFERENCE
1 Banerjee A, Benedetto V, Gichuru P et al Adherence and persistence to direct oral anticoagulants in atrial fibrillation: a population-based study. *Heart* Epub ahead of print. 10 October 2019. doi:10.1136/heartjnl-2019-315307

See also *Reducing stroke risk in patients with atrial fibrillation,* p11

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