Impact of Patient Beliefs and Educational Counselling on NOAC Adherence

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Presentation Structure

- Background
- Study Design
- Results
- Conclusions and Future Vision
Background

- Non-vitamin K oral anticoagulant (NOAC) use is increasing
- Major advantages over vitamin K antagonists (warfarin)
- Lack of INR monitoring leads to less frequent patient review
- Concern that poor adherence may therefore go undetected
- Anticoagulant adherence is vitally important
- Adherence to medication in other chronic conditions known to be low
Background

• NOAC adherence rates not extensively researched in literature

• Some studies have reported 12-43.3% of patients are poorly adherent to their NOAC treatment\(^3,4\)

• Lack of specific United Kingdom & Ireland data on adherence
Background

• Various factors known to affect medication adherence (World Health Organisation 2003)\textsuperscript{5}

• Modifiable factors include:

  (i) **Patient Medication Beliefs**
  (ii) **Educational Counselling on Medication**

• Both factors have been shown to have an impact on medication adherence

• However, investigation into NOAC medication is lacking
Background

• National Institute for Healthcare and Clinical Excellence (NICE) list essential components of NOAC counselling

• Belfast Health and Social Care Trust (BHSCT) manage large numbers of NOAC patients

• Current BHSCT safety initiatives based on Department of Health Objectives in ‘Quality 2020’ and ‘Health and Wellbeing 2026’

• Thrombosis UK mission focused on research to improve thrombosis awareness and patient safety
Study Design

• Aims

- Collect information from representative NOAC patient sample
- Investigate each patient’s medication beliefs and NOAC educational counselling
- Evaluate the impact each has on NOAC adherence
- Use findings to enhance BHSCT NOAC management
Study Design

• Objectives

- Develop a suitable questionnaire
- Analyse links between beliefs/educational counselling and adherence statistically
- Formulate recommendations for service improvement
Study Design

Methodology

- Cross-sectional, questionnaire study
- Sample taken from Royal Victoria Hospital (RVH) inpatients, and Direct Current Cardioversion (DCC) outpatients
- Data collection: 3rd July 2017 – 1st October 2017
- Clinical pharmacists and DCC staff recruited 54 participants
- Inclusion/exclusion criteria
Study Design

Questionnaire

- Four sections
  (a) General Participant Information
  (b) Educational Counselling
  (c) Beliefs About Medications
  (d) Medication Adherence

- Validated templates used:
  1. Beliefs About Medications Questionnaire BMQ
  2. Medication Adherence Rating Scale MARS

- All information self-reported
Results

(a) General Participant Information

- 54 participants (67% male)
- 65% RVH inpatients; 35% DCC patients
- Predominant age grouping 65-79 years old (47%)
Results

(a) General Participant Information

- Where NOAC commenced: 59% local hospital; 24% outpatient clinic; 11% GP
- Indication: 87% AF; 7.5% DVT/PE treatment; 5.5% unsure
- 26% unaware of planned treatment duration
Results

(b) Educational Counselling

- 7.5% state no counselling received
- Only 22% received all recommended components
- 57% carry alert card at all times
Results

(c) Beliefs About Medications

- Results showed a positive median necessity-concerns differential (NCD) score of +5

- Data then broken down to see impact each construct had on NOAC adherence
Results

(d) Medication Adherence

- Participants labelled as non-adherent if MARS score $\geq 1$
- Adherence self-reported for preceding 4-week period
- 9% of participants non-adherent with NOAC medication
- Educational counselling did not significantly affect NOAC adherence rates, or beliefs about medications
(d) Medication Adherence

- Statistically significant association between general medication harm belief strength, and NOAC adherence grouping (p = 0.0039)
- For NOAC specific concerns, participants in the low-adherence group had significantly higher belief scores (p = 0.044)
- No other statistically significant adherence links with medication beliefs discovered
Conclusions and Future Vision

- NOAC adherence requires improvement

- Various factors shown to influence compliance

- Acting as a pilot study, this work has provided direction

- Notable study limitations
Conclusions and Future Vision

- Expanded Health Belief Model\textsuperscript{11} used to generate NOAC management recommendations

- Further research required on a larger scale
Questions?

#LetsTalkClots
NOAC Management in GP Practice

• Jackalyn Lightbody, Practice Based Pharmacist, Dromore

• Enhanced role of Practice Pharmacists in NOAC monitoring

• All new NOAC patients identified and contacted for review within 1 month

• All NOAC patients attend clinic for review at least once annually

• Blood results checked every time NOAC reissued

• Changes in treatment are recommended based on these findings
NOAC Management in GP Practice

• Routine monitoring includes
  - Age
  - Weight
  - Indication
  - Duration
  - Dose
  - CrCl
  - Serum Creatinine
  - FBC
  - Interacting medications
  - Discussion regarding compliance, adverse effects, and any other issues with NOAC use

• This illustrates the role of pharmacists in ensuring suitable NOAC use in primary care
References


