Informed Consent Form (ICF)

Official Title: Impact of a Pharmacist-Led Education Program on Medication Adherence and Treatment Effectiveness of Direct Oral Anticoagulants in Patients with Atrial Fibrillation: A Randomized Controlled Trial (PharmAD-AF)

NCT Number: NCT pending

Date: November 22, 2024

Version: ICF v4.0

Informed Consent Form (English Version)

National Taiwan University Hospital

IRB Number: 202404014RINC

Date/Version: November 22, 2024 (v4.0)

Study Information

Official Title: Impact of a Pharmacist-Led Education Program on Medication Adherence and Treatment Effectiveness of Direct Oral Anticoagulants in Patients with Atrial Fibrillation: A Randomized Controlled Trial (PharmAD-AF)

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1. Purpose of the Study

You are invited to participate in this clinical research study. The purpose of this study is to evaluate the impact of a pharmacist-led education program on patients taking direct oral anticoagulants (DOACs) for atrial fibrillation, focusing on medication adherence and treatment outcomes.

2. Background

This study does not involve experimental drugs or medical devices, nor will it interfere with your routine care. DOACs, including Pradaxa (dabigatran), Xarelto (rivaroxaban), Eliquis (apixaban), and Lixiana (edoxaban), are first-line medications for stroke prevention in atrial fibrillation patients. Although DOACs reduce the risk of stroke, some patients may still experience ischemic stroke (~2%) or intracranial hemorrhage (~0.7%). Previous studies have shown that pharmacist-led education and follow-up can improve the effectiveness and safety of DOAC therapy.

3. Inclusion and Exclusion Criteria

Inclusion criteria:

- Adults aged 18 years or older
- Diagnosed with atrial fibrillation
- Prescribed DOACs with expected use of at least 3 months
- Able to read Chinese and willing to sign informed consent

Exclusion criteria:

- Inability to understand the education program due to cognitive, language, or literacy barriers
- Off-label use of DOACs
- Pregnant or breastfeeding women

4. Study Procedures

This study will last for 2 years, including pharmacist services during the first 6 months and outcome follow-up up to 2 years. You will be randomly assigned (like a coin toss) to either the pharmacist care group or the usual care group.

Intervention group: You will receive pharmacist-led education at baseline, with follow-up visits at 3 and 6 months. Pharmacists will review your lab tests, medication changes, and clinical outcomes, and provide recommendations to your physician if needed.

Usual care group: You will receive standard care arranged by your physician without additional pharmacist-led education.

Questionnaires: You will complete surveys at baseline, 3 months, and 6 months about your medication use and adherence. These will take about 15–20 minutes.

Blood sampling: You will provide 5 mL of blood at 3 and 6 months (total ~10 mL) to measure DOAC trough concentration.

Medical records and NHI linkage: With your permission, your NTUH medical records will be linked to Taiwan's National Health Insurance Research Database (NHIRD, 2014–2028) to track stroke and bleeding outcomes.

Do you agree to allow NHIRD linkage? □ Yes □ No

5. Risks and Possible Side Effects

This study does not interfere with your routine treatment, and no experimental drugs will be provided. The main risks are related to blood sampling. You may experience mild pain, bruising, bleeding, swelling, or infection at the puncture site. These effects are usually temporary. Please inform the study staff if you feel unwell, and the procedure will be stopped immediately.

Potential side effects of DOACs (not related to study participation but to the medication itself):

- Bleeding (~15%): This includes minor bleeding such as blood in urine, stool, or sputum. Serious bleeding, such as intracranial hemorrhage, occurs in about 0.3% of cases. Treatment may require stopping the DOAC and using antidotes or supportive care.
- Thromboembolism (~15%): This includes ischemic stroke or systemic embolism. Immediate medical care is required.

6. Alternatives to Participation

Your participation in this study is voluntary. If you do not participate, you will continue to receive standard care. Alternative treatments include traditional oral anticoagulants such as warfarin (Coumadin), which require regular blood testing and dietary restrictions. Please consult your physician for further advice.

7. Expected Benefits

This study will provide information on factors influencing medication adherence, as well as data on DOAC concentrations under different adherence behaviors. These results may help improve future patient education and monitoring strategies. However, there is no guarantee that you will benefit directly from participating in this study.

8. Restrictions During the Study

For blood sampling, you should not take your DOAC on the morning of the visit until after the blood draw. The previous day's DOAC dose should be taken as prescribed by your physician.

9. Confidentiality of Data

Your personal data and medical records will be kept confidential. All data will be coded so that your identity is not revealed. Regulatory authorities, auditors, and the Research Ethics Committee may review your records to verify study data, but your identity will remain protected. Study results may be published, but your personal identity will not be disclosed.

10. Withdrawal from the Study

You are free to withdraw from this study at any time without providing a reason. Withdrawing will not affect your future medical care. If important new information becomes available that may affect your decision to continue, you will be informed and may be asked to sign an updated consent form. Data collected prior to withdrawal will

be retained. You may choose whether your previously collected samples and data can continue to be used.

11. Compensation and Insurance

If you suffer harm as a result of participation in this study, NTUH will provide appropriate medical care and compensation for reasonable medical expenses, unless the harm is due to known side effects already explained in this consent form. This study has not purchased clinical trial insurance.

12. Use of Biological Samples and Data

Your blood samples will be stored at the NTUH Central Research Laboratory until 2035. Samples will be coded to protect your identity. Remaining samples may be stored for up to 5 years and may be used for future research with approval of the NTUH Research Ethics Committee. You may choose to allow or refuse the use of your samples for future research.

Data collected from your medical records and the NHI database will also be coded and stored securely for up to 5 years.

13. Rights of Participants

If you have questions about your rights as a participant, or if you believe you have been harmed by the study, you may contact the NTUH Research Ethics Committee at (02)2312-3456 ext. 263155. If you have questions about the study itself, you may contact Ms. Hsin-Yi Lin, NTUH Department of Pharmacy, Tel: 0972-651956.

14. Commercial Interests

This study is not expected to generate patents or commercial benefits.

15. Signatures

The study investigator or authorized staff has explained the nature, purpose, risks, and benefits of this study. I have had the opportunity to ask questions, and my questions have been answered satisfactorily. By signing this form, I voluntarily agree to participate in this study.

Participant's Name: _____ Signature: _____ Date: _____

Investigator's/Authorized Person's Name: _____ Signature: _____ Date: _____

Witness (if applicable): _____ Signature: _____ Date: _____