VTE Diagnosis and Treatment Interview Guide

Day of interview: _____

Gender:　☐ Male　　　☐ Female

Time of interview:　Beginning: _____　End: _____

Total duration of interview: _____

Interviewers (circle initials):　　PC　　PH　　ASH　　DW　　YW

The **objective of this interview is to gain an understanding of the cognitive processes – the way you think, your train of thought, your decision process** – that you follow when making a diagnosis of and then treating DVT or PE.

Give overview of interview questions…. DVT diagnosis and treatment followed by PE…

We understand this is a **broad topic and that VTE diagnosis and treatment is not necessarily clear-cut**. A patient's clinical history, current status, medication use and results of diagnostic studies can further complicate – or inform – your decision to diagnose and then treat VTE.

We would also like to **understand how you interact with other clinicians as well as why and when you use various technologies** available.

Ultimately we **hope that by better understanding your decisions and information needs, we can improve technologies – as well as the system** – to help people better interact with each other. We **do NOT intend to create or update VTE algorithms**.

Throughout this interview we encourage you to **provide examples** of cases you have faced. This will help us understand your thought process and how you make diagnosis and treatment decisions. When you talk about specific examples, please **do not use any name or other identifiable information**.

Do you have any questions before we begin?

I. General questions

How long have you worked as an ED physician?

How long have you worked at this hospital?

Briefly describe your day when you are on service. When do you begin your day? End your day? What do you do during the day?

Deep Venous Thromboembolism / Pulmonary Embolism Diagnosis and Treatment – CDM elicitation

I. DIAGNOSING AND TREATING DVT / PE

We would like you to recall a recent or significant case in which a patient you saw had a DVT / PE. Could you **summarize** it for us?

CUES/TRIGGERS/INFORMATION

- What caused you to think that the patient might have a DVT / PE? (What were the **cues, triggers**, etc.)

- Is there anything about this patient that stood out?

OPTIONS

- What did you **consider ordering** as means of making or ruling out the diagnosis? (What were your options?)

- What **influenced your final decision** related to what you ordered to make or rule out the diagnosis?

GOALS (What were your intentions?)

- What was done? (e.g., tests, studies and/or procedures performed)

- How did the **outcome** (of the tests, studies, procedures) **influence how you proceeded** in caring for the patient? What were the direct consequences of your ordering decision?

SYSTEM/OTHER PEOPLE

- Were there **system or patient-related issues that made it easy/difficult** for xxxx (repeat what was done) to be performed? (e.g., performed in a timely manner, etc.?)

    o Was there anything that **negatively affected the outcome** (of the tests, studies, procedures) from a system or patient perspective?

    o Was there anything that **positively affected the outcome** (of the tests, studies, procedures) from a system or patient perspective?

TIME PRESSURE

- Did **time pressure** affect any of your decisions? Why? If so, which ones?

EXPERIENCE/KNOWLEDGE/TRAINING

- Were there **personal factors that affected how you assessed the situation**? What were they? (e.g., experience, stress, perception)

- Did anything (e.g., knowledge, education, recommendation by a colleague) **influence the course of action** you followed?

- Did you **feel clinically prepared** to deal with this type of clinical presentation?

- What would **someone with more experience** have done in the same situation you initially faced?

- What would **someone with less experience** have done in the same situation you initially faced?

- **What else may have caused the signs/symptoms** the patient presented with?

    o What caused you to rule out that diagnosis/those diagnoses?

II. DIAGNOSTIC ERROR

It is always possible that a DVT / PE diagnosis may be
missed, delayed or wrong.

Patient's role
in the process

- What would be **reasons why** the diagnosis would be missed, delayed or wrong? What would be the circumstances associated with the case/patient?

- Do you remember a **specific case/patient** of a missed, delayed or wrong diagnosis? Please tell us about it.
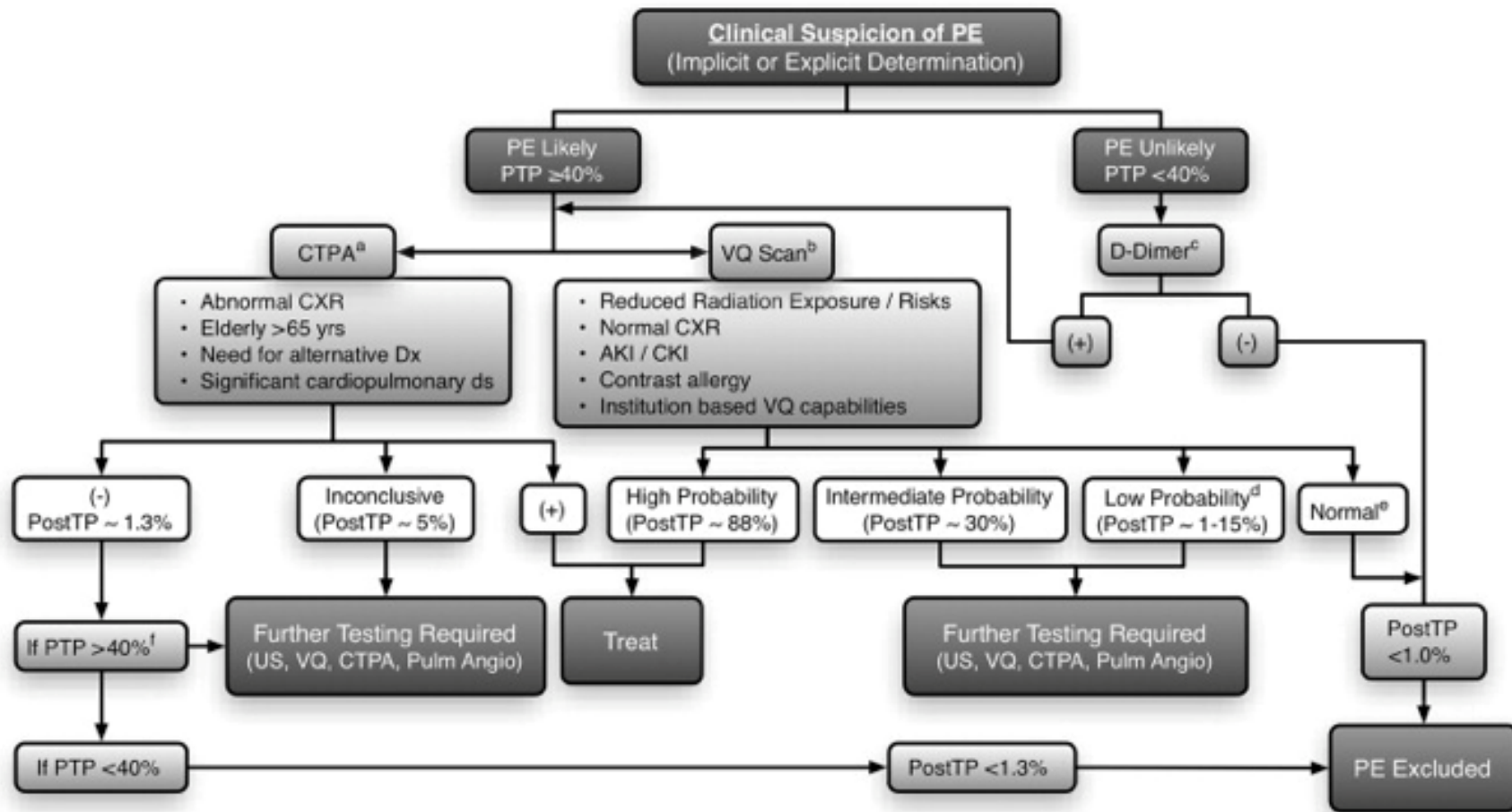
III. OTHER

Is there **anything you wish to add** that we have not already covered concerning diagnosis and treatment of DVT / PE?

IV. IDEAL HEALTH IT DESIGN

This project intends to develop health IT design requirements that facilitate decision making associated with VTE diagnosis and treatment.

- What would your ideal health IT system look like?

- What information would be provided or available to you in the health IT? When?
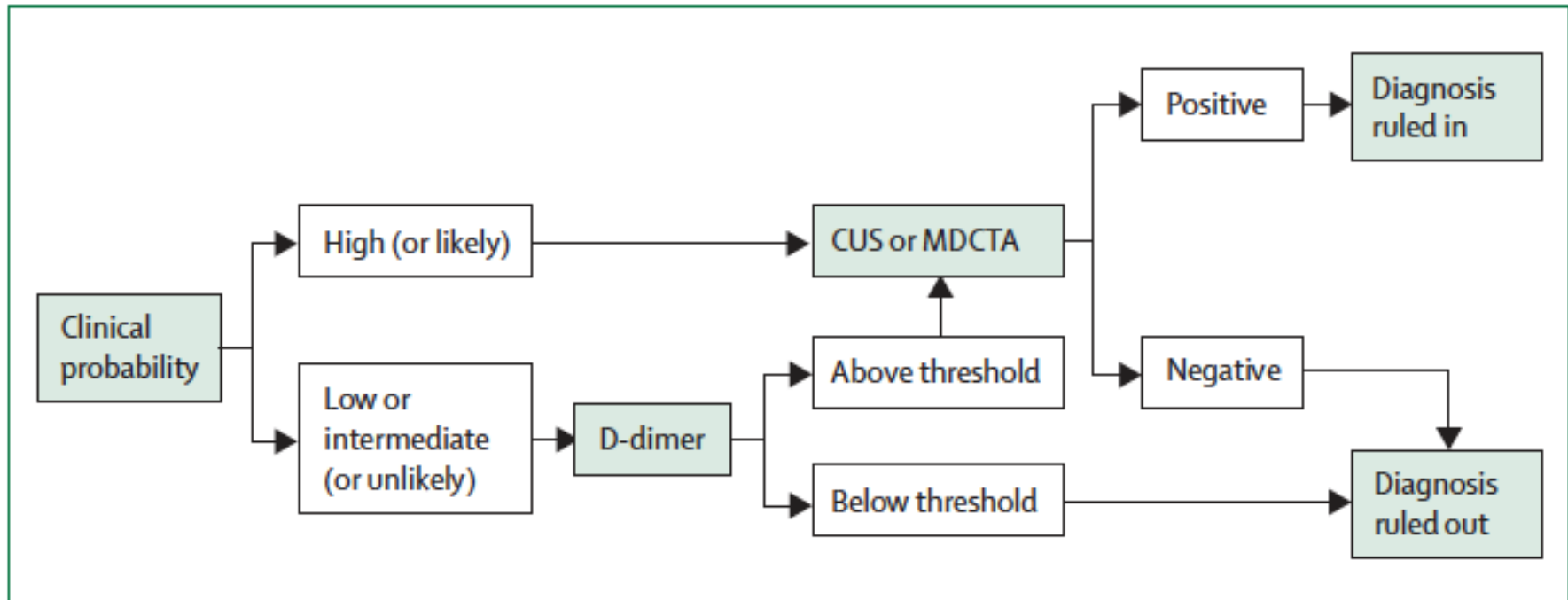
Clinical Suspicion of PE
(Implicit or Explicit Determination)

PE Likely
PTP ≥40%

PE Unlikely
PTP <40%

CTPA[a]

VQ Scan[b]

D-Dimer[c]

- Abnormal CXR
- Elderly >65 yrs
- Need for alternative Dx
- Significant cardiopulmonary ds

- Reduced Radiation Exposure / Risks
- Normal CXR
- AKI / CKI
- Contrast allergy
- Institution based VQ capabilities

(+)

(−)

(−)
PostTP ~ 1.3%

Inconclusive
(PostTP ~ 5%)

(+)

High Probability
(PostTP ~ 88%)

Intermediate Probability
(PostTP ~ 30%)

Low Probability[d]
(PostTP ~ 1-15%)

Normal[e]

If PTP >40%[f]

Further Testing Required
(US, VQ, CTPA, Pulm Angio)

Treat

Further Testing Required
(US, VQ, CTPA, Pulm Angio)

PostTP
<1.0%

If PTP <40%

PostTP <1.3%

PE Excluded

Figure 1: A diagnostic algorithm for clinically suspected deep vein thrombosis or pulmonary embolism
Use of CUS with suspected deep vein thrombosis, and of multidetector CT angiography with pulmonary embolism.
CUS=compression ultrasonography. MDTCA=multidetection CT angiography.