Pulmonary Embolism Organisational Questionnaire

A. The Hospital

1. Type of facility
   - District general hospital <= 500 beds
   - District general hospital > 500 beds
   - University teaching hospital
   - Independent hospital

   If not listed above, please specify here...

2a. Does this hospital have an emergency department?
   - Yes
   - No

2b. If answered "Yes" to [2a] then:
    Is the emergency department open
   - 24 hours a day, 7 days/week
   - Normal working hours (8am - 6pm), 7 days/week
   - Normal working hours (8am - 6pm), Mon-Fri
   - Unknown

   If not listed above, please specify here...

3. Please provide the number of patients (aged 16 or over) with a confirmed diagnosis of PE in 2017
   [ ] Unknown
   Value should be no more than 1,000
B. Ambulatory Care Services

1a. Does this hospital have a designated ambulatory care centre?
   - ○ Yes
   - ○ No
   - ○ Unknown

1b. If answered "Yes" to [1a] then:
   What are the ambulatory care centre opening hours?
   - ○ 24 hours a day, 7 days/week
   - ○ Normal working hours (08:00-18:00) 7 days/week
   - ○ Normal working hours (08:00-18:00) Mon-Fri
   - ○ Unknown
   If not listed above, please specify here...

1c. If answered "Yes" to [1a] then:
   Please indicate how ambulatory care referrals are made
   - ○ ED referrals
   - ○ GP referrals
   - ○ Patient received directly from GP
   - ○ Medical/Surgical specialities
   - ○ All patients have to attend the ED
   - ○ Unknown
   Please specify any additional options here...

1d. If answered "No" to [1a] then:
   Does this hospital operate ambulatory care pathways/processes without a designated centre?
   - ○ Yes
   - ○ No
   - ○ Unknown

1e. If answered "Yes" to [1d] then:
   Please indicate how ambulatory care referrals are made
   - ○ ED referrals
   - ○ GP referrals
   - ○ Patient received directly from GP
   - ○ Medical/Surgical specialities
   - ○ All patients have to attend the ED
   - ○ Unknown
   Please specify any additional options here...

2a. Does the hospital have an ambulatory care pathway for PE?
   - ○ Yes
   - ○ No
   - ○ Unknown

2b. If answered "No" to [2a] then:
   If No, are all referrals for PE admitted to hospital?
   - ○ Yes
   - ○ No
   - ○ Unknown

2c. If answered "No" to [2a] and "No" to [2b] then:
   If No, please describe any alternative pathways used:
3. How are patients suspected of having PE identified as being suitable for ambulatory care?
   If ambulatory care is not available at this hospital please mark not applicable
   - All patients sent to ambulatory care by default
   - Patients screened by referring clinician
   - NEWS or other early warning score
   - AMB score
   - Not applicable, no ambulatory care centre/pathways
   - Unknown
   Please specify any additional options here...

4. Which teams provide ambulatory care for PE patients?
   If ambulatory care is not available at this hospital please mark not applicable
   - Emergency medicine
   - Acute medicine
   - Respiratory medicine
   - Haematology
   - General medical clinic
   - Speciality nurse led clinic
   - Coordinated by MDT
   - Oncology
   - Unknown
   - Not applicable, No ambulatory care centre/pathways
   Please specify any additional options here...

5a. If answered "Yes" to [2a] then:
   Does the hospital have a programme of auditing their ambulatory care PE pathway?
   - Yes
   - No
   - Unknown

5b. If answered "Yes" to [2a] and "Yes" to [5a] then:
   Who is this done by?
   - Emergency medicine
   - Respiratory medicine
   - Acute medicine
   - Haematology
   - Oncology
   - Unknown
   Please specify any additional options here...

5c. If answered "Yes" to [2a] and "Yes" to [5a] then:
   How are audit results of the ambulatory care PE disseminated for learning/improvement?
   - Email alert
   - Notice boards
   - Single speciality audit meetings
   - Paper newsletter
   - Multispecialty audit meetings
   - Unknown
   Please specify any additional options here...

6a. If answered "Yes" to [2a] then:
   Is the decision to use ambulatory care for PE sometimes declined on the basis of inadequate ambulatory care capacity?
   - Yes
   - No
   - Unknown
6b. If answered "Yes" to [6a] and "Yes" to [6a] then:
Please approximate how frequently this occurs (as a percentage of requests)

Value should be no more than 100

☐ Unknown
1a. Is Pulmonary Embolism Rule-Out Criteria (PERC) routinely used to identify patients WHO DO NOT require further investigation for PE?

☐ Yes  ☐ No  ☐ Unknown

1b. If answered "Yes" to [1a] then:
Who uses the PERC?

☐ Acute medicine  ☐ Respiratory medicine  ☐ Unknown

Please specify any additional options here...

1c. If answered "Yes" to [1a] then:
Is the use of PERC restricted to:

☐ Consultants  ☐ ST4 and above  ☐ Unrestricted  ☐ Unknown

Please specify any additional options here...

2a. Does this hospital have a guideline/protocol for the diagnosis and management of PE?

☐ Yes  ☐ No  ☐ Unknown

2b. If answered "Yes" to [2a] then:
Is this protocol the same or a modified version of national guidelines?

☐ Same  ☐ Modified  ☐ Unknown

2c. If answered "Yes" to [2a] then:
What does the guideline/protocol cover?

☐ Emergency imaging
☐ Policy regarding LMWH when imaging is delayed beyond 1 hour
☐ Acute anticoagulation management after diagnosis is confirmed
☐ Duration of anticoagulation
☐ Discharge anticoagulation choice
☐ Unknown

Please specify any additional options here...

3a. Is there a policy/ guideline to assess the severity of PE?

☐ Yes  ☐ No  ☐ Unknown

3b. If answered "Yes" to [3a] then:
If Yes which of the following are used?

☐ Pulmonary Embolism Severity Index (PESI)  ☐ Simplified PESI
☐ Hestia  ☐ Geneva
☐ NEWS

Please specify any additional options here...

4a. Does the hospital have a guideline/ protocol for the diagnosis and treatment of PE during pregnancy?

☐ Yes  ☐ No  ☐ Unknown
4b. If answered "Yes" to [4a] then:
Which of the following does it include?
- ☐ Ambulatory care
- ☐ Clinical likelihood score
- ☐ Modified (radiation reduction) imaging strategies
- ☐ Treatment strategies
- ☐ Specify who manages PE in pregnant patients

Please specify any additional options here...

5a. Does the hospital have a guideline/protocol for the diagnosis and management of massive PE?
- ☐ Yes
- ☐ No
- ☐ Unknown

5b. If answered "Yes" to [5a] then:
Does this include guidance on
- ☐ Assessment by bedside echocardiography
- ☐ Assessment of RV strain on CTPA
- ☐ Transfer to higher care area
- ☐ Biomarkers of heart strain
- ☐ Escalation of treatment

Please specify any additional options here...

6. Does the hospital have a guideline/protocol for the diagnosis and management of submassive PE?
- ☐ Yes
- ☐ No
- ☐ Unknown
### D. Imaging

1a. Does this hospital have formal (cardiology) trans thoracic echocardiography available?

- [ ] On-site
- [ ] Off-site
- [ ] Unavailable
- [ ] Unknown

1b. If answered "On-site" or "Off-site" to [1a] then:

What hours is this service available?

- [ ] 24 hours a day, 7 days/week
- [ ] Normal working hours (08:00-18:00) 7 days/week
- [ ] Normal working hours (08:00-18:00) Mon-Fri
- [ ] Unknown

If not listed above, please specify here...

<table>
<thead>
<tr>
<th>2a. Does this hospital have Point of Care US echo (non cardiology service) available?</th>
</tr>
</thead>
</table>
| - [ ] On-site
| - [ ] Off-site
| - [ ] Unavailable
| - [ ] Unknown

2b. If answered "On-site" or "Off-site" to [2a] then:

What hours is this service available?

- [ ] 24 hours a day, 7 days/week
- [ ] Normal working hours (08:00-18:00) 7 days/week
- [ ] Normal working hours (08:00-18:00) Mon-Fri
- [ ] Unknown

If not listed above, please specify here...

<table>
<thead>
<tr>
<th>3a. Does this hospital have Trans Oesophageal echocardiography available?</th>
</tr>
</thead>
</table>
| - [ ] On-site
| - [ ] Off-site
| - [ ] Unavailable
| - [ ] Unknown

3b. If answered "On-site" or "Off-site" to [3a] then:

What hours is this service available?

- [ ] 24 hours a day, 7 days/week
- [ ] Normal working hours (08:00-18:00) 7 days/week
- [ ] Normal working hours (08:00-18:00) Mon-Fri
- [ ] Unknown

If not listed above, please specify here...

<table>
<thead>
<tr>
<th>4a. Does this hospital have CT Pulmonary angiography available?</th>
</tr>
</thead>
</table>
| - [ ] On-site
| - [ ] Off-site
| - [ ] Unavailable
| - [ ] Unknown

4b. If answered "On-site" or "Off-site" to [4a] then:

What hours is this service available?

- [ ] 24 hours a day, 7 days/week
- [ ] Normal working hours (08:00-18:00) 7 days/week
- [ ] Normal working hours (08:00-18:00) Mon-Fri
- [ ] Unknown

If not listed above, please specify here...
4c. If answered "On-site" or "Off-site" to [4a] then:
What hours is reporting available?

- 24 hours a day, 7 days/week
- Normal working hours (08:00-18:00) 7 days/week
- Normal working hours (08:00-18:00) Mon-Fri
- Unknown

If not listed above, please specify here...

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5a. Does this hospital have Ventilation perfusion (VQ) scanning available?

- On-site
- Off-site
- Unavailable
- Unknown

5b. If answered "On-site" or "Off-site" to [5a] then:
What hours is this service available?

- 24 hours a day, 7 days/week
- Normal working hours (08:00-18:00) 7 days/week
- Normal working hours (08:00-18:00) Mon-Fri
- Unknown

If not listed above, please specify here...

---

5c. If answered "On-site" or "Off-site" to [5a] then:
What hours is reporting available?

- 24 hours a day, 7 days/week
- Normal working hours (08:00-18:00) 7 days/week
- Normal working hours (08:00-18:00) Mon-Fri
- Unknown

If not listed above, please specify here...

---

6a. Does this hospital have VQ SPECT scanning available?

- On-site
- Off-site
- Unavailable
- Unknown

6b. If answered "On-site" or "Off-site" to [6a] then:
What hours is this service available?

- 24 hours a day, 7 days/week
- Normal working hours (08:00-18:00) 7 days/week
- Normal working hours (08:00-18:00) Mon-Fri
- Unknown

If not listed above, please specify here...

---

6c. If answered "On-site" or "Off-site" to [6a] then:
What hours is reporting available?

- 24 hours a day, 7 days/week
- Normal working hours (08:00-18:00) 7 days/week
- Normal working hours (08:00-18:00) Mon-Fri
- Unknown

If not listed above, please specify here...

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7. Is there a system to alert the clinical team of changes made to the final radiology report after a provisional report is provided out-of-hours?

- Yes
- No
- Unknown
8a. Is there a proforma/standardised report for reporting CTPA?

☐ Yes  ☐ No  ☐ Unknown

8b. If answered "Yes" to [8a] then:
If Yes, which of the following does it include reporting on?

☐ The size of the thrombus  ☐ The site of the thrombus
☐ Evidence of right heart strain  ☐ Assessment of IVC thrombus
☐ Assessment of iliac veins  ☐ Assessment of femoral veins

Please specify any additional options here...
E. Inpatient Services

1. Is there a lead clinician for the PE service?
   - Yes
   - No
   - Unknown

2a. Is there an MDT for the management of PE patients?
   - Yes
   - No
   - Unknown

2b. If answered "Yes" to [2a] then:
   Who of the following are regularly included in this team?
   - Pharmacist
   - Haematology
   - Anti-coagulation nurse
   - Respiratory medicine
   - Radiology
   - Interventional radiology
   - Acute medicine
   - Emergency medicine
   - Cardiology
   - Cardiothoracic surgery

   Please specify any additional options here...

2c. If answered "Yes" to [2a] then:
   Are there specific criteria for patients to be selected for PE MDT review?
   - Yes
   - No
   - Unknown

2d. If answered "Yes" to [2a] and "Yes" to [2c] then:
   If Yes what criteria?
   - Pro-coagulant conditions
   - Post-operative PE
   - Post-stroke PE
   - Post-trauma PE
   - Patient with significant bleed/risk of bleed
   - PE with planned surgery
   - Recurrent PE
   - Chronic symptomatic PE/pulmonary hypertension
   - Women of child-bearing age

   Please specify any additional options here...

3a. Does this hospital have access to IV Thrombolysis?
   - On-site
   - Off-site
   - Unavailable
   - Unknown

3b. If answered "On-site" or "Off-site" to [3a] then:
   What hours is this service available?
   - 24 hours a day, 7 days/week
   - Normal working hours (08:00-18:00) 7 days/week
   - Normal working hours (08:00-18:00) Mon-Fri
   - Unknown

   If not listed above, please specify here...

3c. If answered "On-site" to [3a] then:
   Is there a hospital protocol for IV thrombolysis?
   - Yes
   - No
   - Unknown

3d. If answered "On-site" to [3a] then:
   Who delivers the treatment?
   - Emergency department
   - Cardiology
   - Acute medicine
   - Respiratory medicine
   - Critical care

   Please specify any additional options here...
3e. If answered "On-site" to [3a] then: Where is this performed?

- Emergency Department
- MAU
- HDU
- ICU
- CCU
- Unknown

Please specify any additional options here...

4a. Does this hospital have access to catheter directed thrombolysis?

- On-site
- Off-site
- Unavailable
- Unknown

4b. If answered "Off-site" to [4a] then: Does this hospital have a formal service agreement/network for catheter directed thrombolysis?

- Yes
- No but informal service agreement/network in place
- No
- Unknown

If not listed above, please specify here...

5a. Does this hospital have access to mechanical thrombectomy?

- On-site
- Off-site
- Unavailable
- Unknown

5b. If answered "Off-site" to [5a] then: Does this hospital have a formal service agreement/network for mechanical thrombectomy?

- Yes
- No but informal service agreement/network in place
- No
- Unknown

If not listed above, please specify here...

6a. Does this hospital have access to surgical thrombectomy?

- On-site
- Off-site
- Unavailable
- Unknown

6b. If answered "Off-site" to [6a] then: Does this hospital have a formal service agreement/network for surgical thrombectomy?

- Yes
- No but informal service agreement/network in place
- No
- Unknown

7a. Does this hospital have an interventional radiology department?

- Yes
- No
- Unknown
7b. If answered "No" to [7a] then:
Does the hospital have a formal service agreement/network for IVC filter placement and retrieval?

○ Yes
○ No but informal service agreement/network in place
○ No
○ Unknown

If not listed above, please specify here...

7c. If answered "Yes" to [7a] then:
How many permanent IVC filters were inserted in 2017?

If answered "Yes" to [7a] then:
How many temporary IVC filters were inserted in 2017

7d. If answered "Yes" to [7a] then:
Is there a hospital guideline on the use and management of IVC filters?

○ Yes
○ No
○ Unknown

7e. If answered "Yes" to [7a] then:
Which of the following does this include?

☐ List of indications
☐ Imaging follow up for permanent filters
☐ Plan for retrieval if temporary IVC filter
☐ Fail safe system to ensure retrieval occurs

Please specify any additional options here...
F. Patient Education and Follow up

1a. Are patients provided with specific information/education regarding PE?
- [ ] Yes
- [ ] No
- [ ] Unknown

1b. If answered "Yes" to [1a] then:
What does it include?
- [ ] Need to assess risk factors
- [ ] Complications of PE
- [ ] Anti-coagulation plan tailored to each patient
- [ ] Written self management plan
- [ ] Management of anti-coagulation related risks (e.g., alcohol, missed dose)
- [ ] When to seek help
- [ ] Impact of life
- [ ] Future travel
- [ ] Future surgery
- [ ] Contraception
- [ ] Future pregnancy

Please specify any additional options here...

1c. If answered "Yes" to [1a] then:
When is patient education/information provided?
- [ ] Before discharge from hospital
- [ ] First clinic appointment

Please specify any additional options here...

2. Following a diagnosis of PE what services are patients routinely referred/provided with?
- [ ] Enhanced self care
- [ ] Telephone follow-up
- [ ] Primary care follow-up
- [ ] Anticoagulation clinic
- [ ] VTE clinic

Please specify any additional options here...

3a. Is follow up routinely arranged for patients diagnosed with PE?
- [ ] Yes
- [ ] No
- [ ] Unknown

3b. If answered "Yes" to [3a] then:
What does follow up routinely include?
- [ ] Assessment of provoked or unprovoked VTE
- [ ] Screen for pro-thrombotic conditions
- [ ] Duration of anticoagulation
- [ ] Plan for further follow up at 3 months
- [ ] Unknown

Please specify any additional options here...
1a. Do you have a radiology new diagnosis of PE tracking or alert system?

- Yes
- No
- Unknown

1b. If answered "Yes" to [1a] then:

Please provide the number of patients recorded in 2017

[ ] patients

Value should be no more than 10,000

1c. If answered "Yes" to [1a] then:

Is this audited for missed alerts (i.e. PE diagnosed but alert system not used)?

- Yes
- No
- Unknown

1d. If answered "Yes" to [1c] and "Yes" to [1a] then:

How many alerts were missed in 2017?

[ ] Unknown

Value should be no more than 10,000

2a. Is there a system of investigating preventable thrombo-embolic events?

- Yes
- No
- Unknown

2b. If answered "Yes" to [2a] then:

Which type of patients does this include?

- PE in an inpatient admitted for another condition
- Inpatient within the last 3 months
- PE in patients receiving chemotherapy as an outpatient or day case
- PE in patients receiving radiotherapy as an outpatient or day case
- Unknown

Please specify any additional options here...

2c. If answered "Yes" to [2a] then:

Which of the following are investigated?

- Missed VTE assessment
- Prescription of anti-embolism stocking
- Missed VTE prescription
- Application of anti-embolism stocking
- Missed VTE administration
- Use of Flotrons (or equivalent mechanical intermittent compression devices)

Please specify any additional options here...

3a. Are there any identified gaps in your current PE service?

- Yes
- No
- Unknown
3b. If answered "Yes" to [3a] then:
What are these gaps?

3c. If answered "Yes" to [3a] then:
Are there any plans to develop the service to fill these gaps?
- Yes
- No
- Unknown

3d. If answered "Yes" to [3c] then:
Please outline these plans
1. If you wish to make us aware of anything relating to the answers supplied please let us know below. Otherwise, you can leave this section empty.