

NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Interventional Procedures Programme

Specialist Adviser questionnaire

Before completing this questionnaire, please read [Conflicts of Interest for Specialist Advisers](#). Certain conflicts exclude you from offering advice, however, please return the questionnaire to us incomplete for our records.

Please respond in the boxes provided.

Please complete and return to: azad.hussain@nice.org.uk

Procedure Name: Percutaneous mechanical thrombectomy for peripheral venous occlusion

Name of Specialist Advisor: Dr Daniel Conroy

Specialist Society: British Society of Interventional Radiology (BSIR)

1 Do you have adequate knowledge of this procedure to provide advice?

- Yes.
- No – please return the form/answer no more questions.

1.1 Does the title used above describe the procedure adequately?

- Yes.
- No. If no, please enter any other titles below.

Comments:

2 Your involvement in the procedure

2.1 Is this procedure relevant to your specialty?

- Yes.
- Is there any kind of inter-specialty controversy over the procedure?

- No. If no, then answer no more questions, but please give any information you can about who is likely to be doing the procedure.

Comments:

The next 2 questions are about whether you carry out the procedure, or refer patients for it. If you are in a specialty that normally carries out the procedure please answer question 2.2.1. If you are in a specialty that normally selects or refers patients for the procedure, please answer question 2.2.2.

2.2.1 If you are in a specialty that does this procedure, please indicate your experience with it:

- I have never done this procedure.
- I have done this procedure at least once.
- I do this procedure regularly.

Comments:

2.2.2 If your specialty is involved in patient selection or referral to another specialty for this procedure, please indicate your experience with it.

- I have never taken part in the selection or referral of a patient for this procedure.
- I have taken part in patient selection or referred a patient for this procedure at least once.
- I take part in patient selection or refer patients for this procedure regularly.

Comments:

2.3 Please indicate your research experience relating to this procedure (please choose one or more if relevant):

- I have done bibliographic research on this procedure.
- I have done research on this procedure in laboratory settings (e.g. device-related research).
- I have done clinical research on this procedure involving patients or healthy volunteers.
- I have had no involvement in research on this procedure.

- Other (please comment)

Comments:

3 Status of the procedure

3.1 Which of the following best describes the procedure (choose one):

- Established practice and no longer new.
- A minor variation on an existing procedure, which is unlikely to alter the procedure's safety and efficacy.
- Definitely novel and of uncertain safety and efficacy.
- The first in a new class of procedure.

Comments:

3.2 What would be the comparator (standard practice) to this procedure?

Oral anticoagulant therapy only

3.3 Please estimate the proportion of doctors in your specialty who are doing this procedure (choose one):

- More than 50% of specialists engaged in this area of work.
- 10% to 50% of specialists engaged in this area of work.
- Fewer than 10% of specialists engaged in this area of work.
- Cannot give an estimate.

Comments:

4 Safety and efficacy

4.1 What is the potential harm of the procedure?

Please list adverse events and major risks (even if uncommon) and, if possible, estimate their incidence, as follows:

1. Adverse events reported in the literature (if possible please cite literature)

Minor bleeding (not requiring transfusion) – puncture site bleeding and non-puncture site bleeding

Significant bleeding (requiring transfusion) – procedure related blood loss and post procedural haemorrhage

Pulmonary embolism – both symptomatic and asymptomatic.

2. Anecdotal adverse events (known from experience)

Intraprocedural pain

3. Theoretical adverse events

Mortality from thrombus migration into pulmonary arteries

4.2 What are the key efficacy outcomes for this procedure?

Reduction in post thrombotic syndrome

Return to normal daily activities and employment

4.3 Are there uncertainties or concerns about the efficacy of this procedure? If so, what are they?

Use of the procedure in femoral-popliteal occlusions

Use of the procedure in patients with cancer related thrombosis

Long term outcome of mechanical thrombectomy vs oral anticoagulation only

4.4 What training and facilities are needed to do this procedure safely?

Certificate of competency in interventional radiology techniques

Training in use of thrombolytic drugs

Training in use of mechanical thrombectomy devices

Training in deployment and retrieval of inferior vena caval filter devices.

Facilities to manage patients receiving short term (24 - 48hr) thrombolysis infusions

4.5 Are there any major trials or registries of this procedure currently in progress? If so, please list.

4.6 Are you aware of any abstracts that have been *recently* presented/ published on this procedure that may not be listed in a standard literature search, for example PUBMED? (This can include your own work). If yes, please list.

Please note that NICE will do a literature search: we are only asking you for any very recent or potentially obscure abstracts and papers. Please do not feel the need to supply a comprehensive reference list (but you may list any that you think are particularly important if you wish).

4.7 Is there controversy, or important uncertainty, about any aspect of the way in which this procedure is currently being done or disseminated?

Location or extent of thrombosis. Iliofemoral only or femoro-popliteal as well. Patient category to be treated. At present each patient referred is considered individually without any inclusion or exclusion criteria.

5 Audit Criteria

Please suggest a minimum dataset of criteria by which this procedure could be audited.

5.1 Outcome measures of benefit (including commonly used clinical outcomes, both short and long - term; and quality-of-life measures). Please suggest the most appropriate method of measurement for each:

Symptom control. Measurement of early symptom control (14 to 28 days) and long term (3 to 6 months). The 'Villalta' scoring system is widely accepted as the most robust method of measurement.

Return to identical daily activities and employment as prior to thrombosis development.

Chronic post thrombotic syndrome development

5.2 Adverse outcomes (including potential early and late complications). Please state timescales for measurement e.g. bleeding complications up to 1 month post-procedure:

Symptomatic pulmonary embolism

Access site bleeding or haematoma

Non-access site bleeding (immediate – within 24hrs and early – within 30 days)

6 Trajectory of the procedure

6.1 In your opinion, how quickly do you think use of this procedure will spread?

Slowly. Likely to be in specialist hospitals only on selective patients.

6.2 This procedure, if safe and efficacious, is likely to be carried out in (choose one):

- Most or all district general hospitals.
- A minority of hospitals, but at least 10 in the UK.
- Fewer than 10 specialist centres in the UK.
- Cannot predict at present.

Comments:

6.3 The potential impact of this procedure on the NHS, in terms of numbers of patients eligible for treatment and use of resources, is:

- Major.
- Moderate.
- Minor.

Comments:

Approximately 200 to 300 patients treated per year nationally.

7 Other information

7.1 Is there any other information about this procedure that might assist NICE in assessing the possible need to investigate its use?

This procedure is often associated with placement and retrieval of inferior vena caval devices and the placement of venous stents to treat chronic occlusions. Both of these 'extra' procedures also carry risks. There is also the potential need for long term, even lifelong, anticoagulation therapy with an associated increased risk of bleeding.

8 Data protection and conflicts of interest

8. Data protection, freedom of information and conflicts of interest

8.1 Data Protection

The information you submit on this form will be retained and used by the NICE and its advisers for the purpose of developing its guidance and may be passed to other approved third parties. Your name and specialist society will be published in NICE publications and on the NICE website. The specialist advice questionnaire will be published in accordance with our guidance development processes and a copy will be sent to the nominating Specialist Society. Please avoid identifying any individual in your comments.

- I have read and understood this statement and accept that personal information sent to us will be retained and used for the purposes and in the manner specified above and in accordance with the Data Protection Act 1998.
-

8.2 Declarations of interest by Specialist Advisers advising the NICE Interventional Procedures Advisory Committee

Nothing in your submission shall restrict any disclosure of information by NICE that is required by law (including in particular, but without limitation, the Freedom of Information Act 2000).

Please submit a conflicts of interest declaration form listing any potential conflicts of interest including any involvement you may have in disputes or complaints relating to this procedure.

Please use the “Conflicts of Interest for Specialist Advisers” policy as a guide when declaring any conflicts of interest. Specialist Advisers should seek advice if needed from the Associate Director – Interventional Procedures.

Do you or a member of your family¹ have a **personal pecuniary** interest? The main examples are as follows:

Consultancies or directorships attracting regular or occasional payments in cash or kind YES
 NO

Fee-paid work – any work commissioned by the healthcare industry – **this includes income earned in the course of private practice** YES
 NO

Shareholdings – any shareholding, or other beneficial interest, in shares of the healthcare industry YES
 NO

Expenses and hospitality – any expenses provided by a healthcare industry company beyond those reasonably required for accommodation, meals and travel to attend meetings and conferences YES
 NO

Investments – any funds that include investments in the healthcare industry YES
 NO

Do you have a **personal non-pecuniary** interest – for example have you made a public statement about the topic or do you hold an office in a professional organisation or advocacy group with a direct interest in the topic? YES
 NO

Do you have a **non-personal** interest? The main examples are as follows:

Fellowships endowed by the healthcare industry YES
 NO

Support by the healthcare industry or NICE that benefits his/her position or department, eg grants, sponsorship of posts YES
 NO

If you have answered YES to any of the above statements, please describe the nature of the conflict(s) below.

Comments:

¹ ‘Family members’ refers to a spouse or partner living in the same residence as the member or employee, children for whom the member or employee is legally responsible, and adults for whom the member or employee is legally responsible (for example, an adult whose full power of attorney is held by the individual).

Thank you very much for your help.

**Dr Tom Clutton-Brock, Interventional
Procedures Advisory Committee Chair**

**Professor Carole Longson, Director,
Centre for Health Technology
Evaluation.**

Jan 2016

Conflicts of Interest for Specialist Advisers

1 Declarations of interest by Specialist Advisers advising the NICE Interventional Procedures Advisory Committee

- 1.1 Any conflicts of interest set out below should be declared on the questionnaire the Specialist Adviser completes for the procedure.
- 1.2 Specialist Advisers should seek advice if required from the Associate Director – Interventional Procedures.

2 Personal pecuniary interests

- 2.1 A personal pecuniary interest involves a current personal payment to a Specialist Adviser, which may either relate to the manufacturer or owner of a product or service being evaluated, in which case it is regarded as '**specific**' or to the industry or sector from which the product or service comes, in which case it is regarded as '**non-specific**'. The main examples are as follows.
 - 2.1.1 **Consultancies** – any consultancy, directorship, position in or work for the healthcare industry that attracts regular or occasional payments in cash or kind (this includes both those which have been undertaken in the 12 months preceding the point at which the declaration is made and which are planned but have not taken place).
 - 2.1.2 **Fee-paid work** – any work commissioned by the healthcare industry for which the member is paid in cash or in kind (this includes both those which have been undertaken in the 12 months preceding the point at which the declaration is made and which are planned but have not taken place).
 - 2.1.3 **Shareholdings** – any shareholding, or other beneficial interest, in shares of the healthcare industry that are either held by the individual or for which the individual has legal responsibility (for example, children, or relatives whose full Power of Attorney is held by the individual). This does not include shareholdings through unit trusts, pensions funds, or other similar arrangements where the member has no influence on financial management.
 - 2.1.4 **Expenses and hospitality** – any expenses provided by a healthcare industry company beyond that reasonably required for accommodation, meals and travel to attend meetings and conferences (this includes both those which have been undertaken in the 12 months preceding the point at which the declaration is made and which are planned but have not taken place).
 - 2.1.5 **Investments** – any funds which include investments in the healthcare industry that are held in a portfolio over which individuals have the ability to instruct the fund manager as to the composition of the fund.
- 2.2 No personal interest exists in the case of:
 - 2.2.1 assets over which individuals have no financial control (for example, wide portfolio unit trusts and occupational pension funds) and where the fund manager has full discretion as to its composition (for example, the Universities Superannuation Scheme)
 - 2.2.2 accrued pension rights from earlier employment in the healthcare industry.

3 **Personal family interest**

- 3.1 This relates to the personal interests of a family member and involves a **current payment** to the family member of the Specialist Adviser. The interest may relate to the manufacturer or owner of a product or service being evaluated, in which case it is regarded as **'specific'**, or to the industry or sector from which the product or service comes, in which case it is regarded as **'non-specific'**. The main examples include the following.
- 3.1.1 Any consultancy, directorship, position in or work for a healthcare industry that attracts regular or occasional payments in cash or in kind.
- 3.1.2 Any fee-paid work commissioned by a healthcare industry for which the member is paid in cash or in kind.
- 3.1.3 Any shareholdings, or other beneficial interests, in a healthcare industry which are either held by the family member or for which an individual covered by this Code has legal responsibility (for example, children, or adults whose full Power of Attorney is held by the individual).
- 3.1.4 Expenses and hospitality provided by a healthcare industry company (except where they are provided to a general class of people such as attendees at an open conference)
- 3.1.5 Funds which include investments in the healthcare industry that are held in a portfolio over which individuals have the ability to instruct the fund manager as to the composition of the fund.
- 3.2 No personal family interest exists in the case of:
- 3.2.1 assets over which individuals have no financial control (for example, wide portfolio unit trusts and occupational pension funds) and where the fund manager has full discretion as to its composition (for example, the Universities Superannuation Scheme)
- 3.2.2 accrued pension rights from earlier employment in the healthcare industry.

4 **Personal non-pecuniary interests**

These might include, but are not limited to:

- 4.1 a clear opinion, reached as the conclusion of a research project, about the clinical and/or cost effectiveness of an intervention under review
- 4.2 a public statement in which an individual covered by this Code has expressed a clear opinion about the matter under consideration, which could reasonably be interpreted as prejudicial to an objective interpretation of the evidence
- 4.3 holding office in a professional organisation or advocacy group with a direct interest in the matter under consideration
- 4.4 other reputational risks in relation to an intervention under review.

5 **Non-personal interests**

- 5.1 A non-personal interest involves payment that benefits a department or organisation for which a Specialist Advisor is responsible, but that is not received by the Specialist Advisor personally. This may either relate to the product or service being evaluated, in which case it is regarded as **'specific,'** or to the manufacturer or owner of the product or service, but is unrelated to the matter under consideration, in which case it is regarded as **'non-specific'**. The main examples are as follows.

- 5.1.1 **Fellowships** – the holding of a fellowship endowed by the healthcare industry.
- 5.1.2 **Support by the healthcare industry or NICE** – any payment, or other support by the healthcare industry or by NICE that does not convey any pecuniary or material benefit to a member personally but that does benefit his/her position or department. For example:
- a grant from a company for the running of a unit or department for which a Specialist Advisor is responsible
 - a grant, fellowship or other payment to sponsor a post or member of staff in the unit for which a Specialist Advisor is responsible. This does not include financial assistance for students
 - the commissioning of research or other work by, or advice from, staff who work in a unit for which the specialist advisor is responsible
 - one or more contracts with, or grants from, NICE.
- 5.2 Specialist Advisers are under no obligation to seek out knowledge of work done for, or on behalf of, the healthcare industry within departments for which they are responsible if they would not normally expect to be informed.

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Interventional Procedures Programme

Specialist Adviser questionnaire

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Please respond in the boxes provided.

Please complete and return to: azad.hussain@nice.org.uk

Procedure Name: Percutaneous mechanical thrombectomy for peripheral venous occlusion
Name of Specialist Advisor: Dr David Thompson
Specialist Society: British Society of Interventional Radiology (BSIR)

1 Do you have adequate knowledge of this procedure to provide advice?

Yes.

No – please return the form/answer no more questions.

1.1 Does the title used above describe the procedure adequately?

Yes.

No. If no, please enter any other titles below.

Comments:

Does this include/exclude pharmacomechanical thrombectomy?

2 Your involvement in the procedure

2.1 Is this procedure relevant to your specialty?

Yes.

- Is there any kind of inter-specialty controversy over the procedure?
- No. If no, then answer no more questions, but please give any information you can about who is likely to be doing the procedure.

Comments:

Some Vascular surgeons also perform the procedure

The next 2 questions are about whether you carry out the procedure, or refer patients for it. If you are in a specialty that normally carries out the procedure please answer question 2.2.1. If you are in a specialty that normally selects or refers patients for the procedure, please answer question 2.2.2.

2.2.1 If you are in a specialty that does this procedure, please indicate your experience with it:

- I have never done this procedure.
- I have done this procedure at least once.
- I do this procedure regularly.

Comments:

2.2.2 If your specialty is involved in patient selection or referral to another specialty for this procedure, please indicate your experience with it.

- I have never taken part in the selection or referral of a patient for this procedure.
- I have taken part in patient selection or referred a patient for this procedure at least once.
- I take part in patient selection or refer patients for this procedure regularly.

Comments:

2.3 Please indicate your research experience relating to this procedure (please choose one or more if relevant):

- I have done bibliographic research on this procedure.
- I have done research on this procedure in laboratory settings (e.g. device-related research).
- I have done clinical research on this procedure involving patients or healthy volunteers.

- I have had no involvement in research on this procedure.
- Other (please comment)

Comments:

3 Status of the procedure

3.1 Which of the following best describes the procedure (choose one):

- Established practice and no longer new.
- A minor variation on an existing procedure, which is unlikely to alter the procedure's safety and efficacy.
- Definitely novel and of uncertain safety and efficacy.
- The first in a new class of procedure.

Comments:

Established practice for some but little good evidence

3.2 What would be the comparator (standard practice) to this procedure?

Best medical therapy (anticoagulation). (or possibly catheter directed thrombolysis)

3.3 Please estimate the proportion of doctors in your specialty who are doing this procedure (choose one):

- More than 50% of specialists engaged in this area of work.
- 10% to 50% of specialists engaged in this area of work.
- Fewer than 10% of specialists engaged in this area of work.
- Cannot give an estimate.

Comments:

4 Safety and efficacy

4.1 What is the potential harm of the procedure?

Please list adverse events and major risks (even if uncommon) and, if possible, estimate their incidence, as follows:

1. Adverse events reported in the literature (if possible please cite literature)

Symptomatic/asymptomatic Pulmonary emboli
Haemolysis affecting renal function,
Blood loss requiring transfusion
Vessel damage

2. Anecdotal adverse events (known from experience)

Arrhythmias

3. Theoretical adverse events

Death/stroke/Myocardial Infarction

4.2 What are the key efficacy outcomes for this procedure?

Technical success, Reduction in validated venous/post thrombotic limb score (2yrs), (cost)

+

4.3 Are there uncertainties or concerns about the efficacy of this procedure? If so, what are they?

Are we looking purely at the efficacy of the procedure (in which case is this based on venography or intravascular ultrasound) or are we looking at the clinical success of treating the underlying pathology associated with the venous occlusion (ie lower/upper limb dvt). The latter will be difficult to define in isolation as approx. 80% of the patients being treated for lower limb DVT with thrombectomy potentially will be having adjuvant venous stenting and would we be measuring the success of the stenting?

4.4 What training and facilities are needed to do this procedure safely?

fully equipped and staffed angiography suite (or hybrid lab) with availability of general anaesthetic. Appropriately trained Vascular Radiologist/surgeon. Stent, angioplasty balloon and ivc filter availability. Intravascular ultrasound capability. Mechanical thrombectomy device(s). Ability to use thrombolysis Doppler ultrasound availability for follow up

4.5 Are there any major trials or registries of this procedure currently in progress? If so, please list.

ATTRACT, CAVENT

4.6 Are you aware of any abstracts that have been *recently* presented/published on this procedure that may not be listed in a standard literature search, for example PUBMED? (This can include your own work). If yes, please list.

Please note that NICE will do a literature search: we are only asking you for any very recent or potentially obscure abstracts and papers. Please do not feel the need to supply a comprehensive reference list (but you may list any that you think are particularly important if you wish).

PEARL registry for angiojet

4.7 Is there controversy, or important uncertainty, about any aspect of the way in which this procedure is currently being done or disseminated?

Will be difficult to unbundle success of thrombectomy with clinical success of treating the underlying pathology.
Certainly recent ATTRACT trial data controversial.

5 Audit Criteria

Please suggest a minimum dataset of criteria by which this procedure could be audited.

Timing related to thrombosis.

Technical success (venography or IVUS)

Adjuvant treatment (lysis/stenting)

Use of IVC filter

30 day complications

Clinical improvement (early / late)

Longer term anticoagulation

5.1 Outcome measures of benefit (including commonly used clinical outcomes, both short and long - term; and quality-of-life measures). Please suggest the most appropriate method of measurement for each:

If looking at DVT follow up then Villalta/CEAP scores etc

5.2 Adverse outcomes (including potential early and late complications). Please state timescales for measurement e.g. bleeding complications up to 1 month post-procedure:

30 day early complication (PE/recurrence/bleeding MAE etc)

Then probably 2 year long term follow up

6 Trajectory of the procedure

6.1 In your opinion, how quickly do you think use of this procedure will spread?

If more robust data for benefit in iliofemoral DVT then significant uptake, otherwise little change

6.2 This procedure, if safe and efficacious, is likely to be carried out in (choose one):

Most or all district general hospitals.

- A minority of hospitals, but at least 10 in the UK.
- Fewer than 10 specialist centres in the UK.
- Cannot predict at present.

Comments:

Realistically limited to major vascular centres

6.3 The potential impact of this procedure on the NHS, in terms of numbers of patients eligible for treatment and use of resources, is:

- Major.
- Moderate.
- Minor.

Comments:

If trials show a major benefit in the treatment of iliofemoral DVT then a moderate cost implication

7 Other information

7.1 Is there any other information about this procedure that might assist NICE in assessing the possible need to investigate its use?

Need to decide if we are looking purely at the local efficacy/safety of mechanical devices or extrapolating to the benefit of treating the pathology as a whole.

Overlap with thrombolysis/ pharmacomechanical thrombectomy and venous stenting
Dialysis fistulae. Also used in SVC/IVC
Devices generally used for iliofemoral DVT, upper limb DVT and unblocking

8 Data protection and conflicts of interest

8. Data protection, freedom of information and conflicts of interest

8.1 Data Protection

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I have read and understood this statement and accept that personal information sent to us will be retained and used for the purposes and in the manner specified above and in accordance with the Data Protection Act 1998.....**YES**

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Do you or a member of your family¹ have a **personal pecuniary** interest? The main examples are as follows:

Consultancies or directorships attracting regular or occasional payments in cash or kind **YES**
XX **NO**

Fee-paid work – any work commissioned by the healthcare industry – **this includes income earned in the course of private practice** **YES**
X **NO**

Shareholdings – any shareholding, or other beneficial interest, in shares of the healthcare industry **YES**
X **NO**

Expenses and hospitality – any expenses provided by a healthcare industry company beyond those reasonably required for accommodation, meals and travel to attend meetings and conferences **YES**
X **NO**

Investments – any funds that include investments in the healthcare industry **YES**
X **NO**

Do you have a **personal non-pecuniary** interest – for example have you made a public statement about the topic or do you hold an office in a professional organisation or advocacy group with a direct interest in the topic? **YES**
X **NO**

Do you have a **non-personal** interest? The main examples are as follows:

Fellowships endowed by the healthcare industry **YES**
X **NO**

¹ ‘Family members’ refers to a spouse or partner living in the same residence as the member or employee, children for whom the member or employee is legally responsible, and adults for whom the member or employee is legally responsible (for example, an adult whose full power of attorney is held by the individual).

Support by the healthcare industry or NICE that benefits his/her position or department, eg grants, sponsorship of posts

YES

NO

If you have answered YES to any of the above statements, please describe the nature of the conflict(s) below.

Comments:

Thank you very much for your help.

**Dr Tom Clutton-Brock, Interventional
Procedures Advisory Committee Chair**

**Professor Carole Longson, Director,
Centre for Health Technology
Evaluation.**

Jan 2016

Conflicts of Interest for Specialist Advisers

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 - 2.2.1 assets over which individuals have no financial control (for example, wide portfolio unit trusts and occupational pension funds) and where the fund manager has full discretion as to its composition (for example, the Universities Superannuation Scheme)
 - 2.2.2 accrued pension rights from earlier employment in the healthcare industry.

3 **Personal family interest**

- 3.1 This relates to the personal interests of a family member and involves a **current payment** to the family member of the Specialist Adviser. The interest may relate to the manufacturer or owner of a product or service being evaluated, in which case it is regarded as '**specific**', or to the industry or sector from which the product or service comes, in which case it is regarded as '**non-specific**'. The main examples include the following.
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4 **Personal non-pecuniary interests**

These might include, but are not limited to:

- 4.1 a clear opinion, reached as the conclusion of a research project, about the clinical and/or cost effectiveness of an intervention under review
- 4.2 a public statement in which an individual covered by this Code has expressed a clear opinion about the matter under consideration, which could reasonably be interpreted as prejudicial to an objective interpretation of the evidence
- 4.3 holding office in a professional organisation or advocacy group with a direct interest in the matter under consideration
- 4.4 other reputational risks in relation to an intervention under review.

5 **Non-personal interests**

- 5.1 A non-personal interest involves payment that benefits a department or organisation for which a Specialist Advisor is responsible, but that is not received by the Specialist Advisor personally. This may either relate to the product or service being evaluated, in which case it is regarded as '**specific**,' or to the manufacturer or owner of the product or service, but is unrelated to the matter under consideration, in which case it is regarded as '**non-specific**'. The main examples are as follows.

- 5.1.1 **Fellowships** – the holding of a fellowship endowed by the healthcare industry.
- 5.1.2 **Support by the healthcare industry or NICE** – any payment, or other support by the healthcare industry or by NICE that does not convey any pecuniary or material benefit to a member personally but that does benefit his/her position or department. For example:
- a grant from a company for the running of a unit or department for which a Specialist Advisor is responsible
 - a grant, fellowship or other payment to sponsor a post or member of staff in the unit for which a Specialist Advisor is responsible. This does not include financial assistance for students
 - the commissioning of research or other work by, or advice from, staff who work in a unit for which the specialist advisor is responsible
 - one or more contracts with, or grants from, NICE.
- 5.2 Specialist Advisers are under no obligation to seek out knowledge of work done for, or on behalf of, the healthcare industry within departments for which they are responsible if they would not normally expect to be informed.

NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Interventional Procedures Programme

Specialist Adviser questionnaire

Before completing this questionnaire, please read [Conflicts of Interest for Specialist Advisers](#). Certain conflicts exclude you from offering advice, however, please return the questionnaire to us incomplete for our records.

Please respond in the boxes provided.

Please complete and return to: azad.hussain@nice.org.uk

Procedure Name: Percutaneous mechanical thrombectomy for peripheral venous occlusion

Name of Specialist Advisor: Mr Marcus Brooks

Specialist Society: Vascular Society of Great Britain

1 Do you have adequate knowledge of this procedure to provide advice?

- Yes.
- No – please return the form/answer no more questions.

1.1 Does the title used above describe the procedure adequately?

- Yes.
- No. If no, please enter any other titles below.

Comments:

The title does not include the infusion of a thrombolytic agent (i.e. Alteplase™) which is standard practice within most UK vascular units. I suggest scope of guidance must cover '*percutaneous mechanical or pharmacomechanical thrombectomy for deep vein thrombosis*'.

Medical devices used for this procedure include **AngioJet™**, Boston Scientific, **Cleaner™**, Argon Medical, **Trellis™**, Covidien/Medtronic, **Indigo™**, Penumbra and **AspirixS™**, Straub Medical.

I have used the term 'deep vein thrombosis' in place of 'peripheral vein occlusion' in line with IPG523 for ultrasound-enhanced CDT (June 2015).

My question would be whether the scope of this review is intended to include thrombolysis of dialysis access fistulas and grafts?

2 Your involvement in the procedure

2.1 Is this procedure relevant to your specialty?

- Yes.
- Is there any kind of inter-specialty controversy over the procedure?
- No. If no, then answer no more questions, but please give any information you can about who is likely to be doing the procedure.

Comments:

In our unit, as in many others in the UK, vascular surgeons and vascular interventional radiologists work co-operatively to deliver this service.

The next 2 questions are about whether you carry out the procedure, or refer patients for it. If you are in a specialty that normally carries out the procedure please answer question 2.2.1. If you are in a specialty that normally selects or refers patients for the procedure, please answer question 2.2.2.

2.2.1 If you are in a specialty that does this procedure, please indicate your experience with it:

- I have never done this procedure.
- I have done this procedure at least once.
- I do this procedure regularly.

Comments:

I have observed patients being treated and have been involved in developing a patient pathway of care for PMT for ilio-femoral ('proximal') DVT.

2.2.2 If your specialty is involved in patient selection or referral to another specialty for this procedure, please indicate your experience with it.

- I have never taken part in the selection or referral of a patient for this procedure.
- I have taken part in patient selection or referred a patient for this procedure at least once.
- I take part in patient selection or refer patients for this procedure regularly.

Comments: See 2.2.1

2.3 Please indicate your research experience relating to this procedure (please choose one or more if relevant):

- I have done bibliographic research on this procedure.
- I have done research on this procedure in laboratory settings (e.g. device-related research).
- I have done clinical research on this procedure involving patients or healthy volunteers.
- I have had no involvement in research on this procedure.
- Other (please comment)

Comments:

3 Status of the procedure

3.1 Which of the following best describes the procedure (choose one):

- Established practice and no longer new.
- A minor variation on an existing procedure, which is unlikely to alter the procedure's safety and efficacy.
- Definitely novel and of uncertain safety and efficacy.
- The first in a new class of procedure.

Comments:

PMT is a standard treatment for managing occluded renal access fistulas and grafts. Most UK vascular units and vascular interventional radiology departments use it for the management proximal deep vein thrombosis and/or acute arterial thrombosis.

3.2 What would be the comparator (standard practice) to this procedure?

1. Anticoagulation alone
2. Catheter directed thrombolysis using Alteplase™
3. Percutaneous pharmacomechanical thrombolysis (if outside of the scope of this guidance)

3.3 Please estimate the proportion of doctors in your specialty who are doing this procedure (choose one):

- More than 50% of specialists engaged in this area of work.
- 10% to 50% of specialists engaged in this area of work.

- Fewer than 10% of specialists engaged in this area of work.
- Cannot give an estimate.

Comments:

This estimate is for vascular surgeons. The estimate for vascular intervention radiologists with whom we work closely is 10-50%.

4 Safety and efficacy

4.1 What is the potential harm of the procedure?

Please list adverse events and major risks (even if uncommon) and, if possible, estimate their incidence, as follows:

1. Adverse events reported in the literature (if possible please cite literature)

**Karthikesilingam et al Eur J Vasc Endovasc Surg (2011); 41(4): 554-65.
CaVenT (2011)**

ATTRACT (2017)

Minor or Major haemorrhage
Acute thrombosis or rethrombosis (early or late)
Infection of access site
Contrast reaction
Thromboembolisation (pulmonary embolus)
Cardiac arrhythmias/Myocardial infarction
Haemoglobulinuria/Acute kidney injury/Renal failure
Hypotension
Death

2. Anecdotal adverse events (known from experience)

No additional

3. Theoretical adverse events

Venous perforation
Pancreatitis

4.2 What are the key efficacy outcomes for this procedure?

Changes in

1. Patient reported quality of life (QOL) scores i.e. SF-36
2. Patient reported venous QOL scores i.e. Venous clinical severity score (VCSS) or VEINES disease specific quality of life
3. Specific lower limb venous scores for post thrombotic syndrome i.e. Villalta Score
4. Venous disease assessment = CEAP score
5. Leg-pain severity Likert scale
6. Changes in leg circumference
7. Venous patency as documented with intra-vascular ultrasound (IVUS)
8. Venous patency as documented by Duplex ultrasound (Duplex)

4.3 Are there uncertainties or concerns about the efficacy of this procedure? If so, what are they?

In the CaVent Trial (2011) catheter directed thrombolysis and/or percutaneous pharmacomechanical thromboembolism plus anticoagulation improved ilio-femoral venous patency when compared to anticoagulation alone. This resulted in a small reduction in the incidence of severe post thrombotic syndrome, as defined using the Villalta score. The larger Attract trial (2017) failed to show a significant reduction in the incidence of severe PTS at 2 years in patients treated with CDT/PMT plus anticoagulation versus those treated with anticoagulation alone.

In neither study was there a difference in quality of life score at 2 years. There is therefore uncertainty over which patient groups benefit most from PMT.

4.4 What training and facilities are needed to do this procedure safely?

Patients require inpatient admission to a specialist vascular ward familiar with running thrombolysis infusions and IV Heparin anticoagulation. Nursing staff need to be trained in performing regular observations, including routine neuro observations whilst Alteplase™ infusion is running. Patients should be fitted with mechanical lower limb calf compression device (i.e. Flowtron™, ArjoHuntleigh).

Pre-treatment patients require a venous Duplex ultrasound, renal function checking and many have additional cross-sectional imaging (i.e. MR venogram).

Standard procedures must be in place for consent with a clear explanation of the potential benefits and risks of this intervention. Patients must be willing to take regular anticoagulation medication even after treatment. In treating iliac thrombosis up to 70% of patients will require a venous stent to treat an underlying venous stenosis. Stent insertion is under general anaesthetic and is optimally done with IVUS guidance to achieve ideal stent placement and ensure that there is no residual stenosis that will predispose to re-occlusion.

Percutaneous pharmacomechanical thrombectomy must be performed in an interventional radiology suite with good quality imaging equipment. Ideally intravascular ultrasound should be available. There needs to be a trained operator, an interventional radiologist or vascular surgeon, trained nursing team (assisting and circulating) and a radiographer.

Treatment sessions are limited by the amount of clot that can safely be removed so patients will not infrequently return for more than one treatment session or check venogram.

4.5 Are there any major trials or registries of this procedure currently in progress? If so, please list.

No aware of any current trials.

4.6 Are you aware of any abstracts that have been recently presented/published on this procedure that may not be listed in a standard literature search, for example PUBMED? (This can include your own work). If yes, please list.

Please note that NICE will do a literature search: we are only asking you for any very recent or potentially obscure abstracts and papers. Please do not feel the need to supply a comprehensive reference list (but you may list any that you think are particularly important if you wish).

No

4.7 Is there controversy, or important uncertainty, about any aspect of the way in which this procedure is currently being done or disseminated?

No controversy. As already stated there is uncertainty over which patient groups derive most clinical benefit. There is no good cost effectiveness data. There is no specific tariff for PMT and neither disposables or IVUS catheters are excluded devices meaning; providing this service places a significant financial pressure on Trusts, the benefits of reduced post thrombotic syndrome at 2 years with less use of compression hosiery, pain relief and ulcer care products is a later cost saving to the wider NHS.

5 Audit Criteria

Please suggest a minimum dataset of criteria by which this procedure could be audited.

OUTCOMES

Technical success (>90% clot resolution)
Patency (30 day and 2 years)
Re-interventions/
Venous specific QOL

SAFETY

Minor and major haemorrhage
Pulmonary embolism
Acute kidney injury

5.1 Outcome measures of benefit (including commonly used clinical outcomes, both short and long - term; and quality-of-life measures). Please suggest the most appropriate method of measurement for each:

24 hours	Technical success
10 days	Patency and early complications (i.e. bleeding, AKI)
2 years	Clinical benefit

5.2 Adverse outcomes (including potential early and late complications). Please state timescales for measurement e.g. bleeding complications up to 1 month post-procedure:

6 Trajectory of the procedure

6.1 In your opinion, how quickly do you think use of this procedure will spread?

It has already spread, though I do not have data on how many units perform this procedure routinely I know that at least 3 units in the South West alone are performing pharmacomechanical thrombectomy using at least 2 different devices (AngioJet™ and Indigo™).

6.2 This procedure, if safe and efficacious, is likely to be carried out in (choose one):

- Most or all district general hospitals.
- A minority of hospitals, but at least 10 in the UK.
- Fewer than 10 specialist centres in the UK.
- Cannot predict at present.

Comments:

This should be restricted to Arterial Centres with modern vascular networks with 24/7 access to vascular surgery and vascular interventional radiology. All patients must be nursed on the specialist vascular ward to allow early detection of problems.

This is in line with NHS England commissioning guidance for Specialist Vascular Services.

6.3 The potential impact of this procedure on the NHS, in terms of numbers of patients eligible for treatment and use of resources, is:

- Major.
- Moderate.
- Minor.

Comments:

This treatment should initially be offered only to patients without significant co-morbidity (i.e. cardiac, respiratory or renal disease) presenting acutely (≤ 14 days) with lower limb deep vein thrombosis involving the iliac segment.

In our local vascular network, serving 1.4 million people, we treated 18 people with thrombolysis last year.

7 Other information

7.1 Is there any other information about this procedure that might assist NICE in assessing the possible need to investigate its use?

NICE has already performed technology assessment on ultrasound enhanced, catheter directed thrombolysis for deep venous thrombosis (IPG523).

8 Data protection, freedom of information and conflicts of interest

8.1 Data Protection

The information you submit on this form will be retained and used by the NICE and its advisers for the purpose of developing its guidance and may be passed to other approved third parties. Your name and specialist society will be published in NICE publications and on the NICE website. The specialist advice questionnaire will be

published in accordance with our guidance development processes and a copy will be sent to the nominating Specialist Society. Please avoid identifying any individual in your comments.

X I have read and understood this statement and accept that personal information sent to us will be retained and used for the purposes and in the manner specified above and in accordance with the Data Protection Act 1998.

8.2 **Declarations of interest by Specialist Advisers advising the NICE Interventional Procedures Advisory Committee**

Nothing in your submission shall restrict any disclosure of information by NICE that is required by law (including in particular, but without limitation, the Freedom of Information Act 2000).

Please submit a conflicts of interest declaration form listing any potential conflicts of interest including any involvement you may have in disputes or complaints relating to this procedure.

Please use the “Conflicts of Interest for Specialist Advisers” policy as a guide when declaring any conflicts of interest. Specialist Advisers should seek advice if needed from the Associate Director – Interventional Procedures.

Do you or a member of your family¹ have a **personal pecuniary** interest? The main examples are as follows:

- | | |
|--|--|
| Consultancies or directorships attracting regular or occasional payments in cash or kind | <input checked="" type="checkbox"/> YES |
| | <input type="checkbox"/> NO |
| Fee-paid work – any work commissioned by the healthcare industry – this includes income earned in the course of private practice | <input checked="" type="checkbox"/> YES |
| | <input type="checkbox"/> NO |
| Shareholdings – any shareholding, or other beneficial interest, in shares of the healthcare industry | <input type="checkbox"/> YES |
| | <input checked="" type="checkbox"/> NO |
| Expenses and hospitality – any expenses provided by a healthcare industry company beyond those reasonably required for accommodation, meals and travel to attend meetings and conferences | <input type="checkbox"/> YES |
| | <input checked="" type="checkbox"/> NO |
| Investments – any funds that include investments in the healthcare industry | <input type="checkbox"/> YES |
| | <input checked="" type="checkbox"/> NO |

¹ ‘Family members’ refers to a spouse or partner living in the same residence as the member or employee, children for whom the member or employee is legally responsible, and adults for whom the member or employee is legally responsible (for example, an adult whose full power of attorney is held by the individual).

Do you have a **personal non-pecuniary** interest – for example have you made a public statement about the topic or do you hold an office in a professional organisation or advocacy group with a direct interest in the topic? **YES**
 NO

Do you have a **non-personal** interest? The main examples are as follows:

Fellowships endowed by the healthcare industry **YES**
 NO

Support by the healthcare industry or NICE that benefits his/her position or department, eg grants, sponsorship of posts **YES**
 NO

If you have answered YES to any of the above statements, please describe the nature of the conflict(s) below.

Comments:

Directorship

1. Co-director (with my wife) of Brooks Medical Limited, providing Consultant private practice in vascular surgery and diagnostic radiology.
2. Director of Vascular Society Limited (Vascular Society of Great Britain and Ireland).

Fee-paid work

1. Consultancy for WL Gore limited, Aortic Division, 2016.
2. Course Director for WL Gore limited, Aortic Division, ongoing.

Thank you very much for your help.

**Dr Tom Clutton-Brock, Interventional
Procedures Advisory Committee Chair**

**Professor Carole Longson, Director,
Centre for Health Technology
Evaluation.**

Jan 2016

Conflicts of Interest for Specialist Advisers

1 Declarations of interest by Specialist Advisers advising the NICE Interventional Procedures Advisory Committee

- 1.1 Any conflicts of interest set out below should be declared on the questionnaire the Specialist Adviser completes for the procedure.
- 1.2 Specialist Advisers should seek advice if required from the Associate Director – Interventional Procedures.

2 Personal pecuniary interests

- 2.1 A personal pecuniary interest involves a current personal payment to a Specialist Adviser, which may either relate to the manufacturer or owner of a product or service being evaluated, in which case it is regarded as '**specific**' or to the industry or sector from which the product or service comes, in which case it is regarded as '**non-specific**'. The main examples are as follows.
 - 2.1.1 **Consultancies** – any consultancy, directorship, position in or work for the healthcare industry that attracts regular or occasional payments in cash or kind (this includes both those which have been undertaken in the 12 months preceding the point at which the declaration is made and which are planned but have not taken place).
 - 2.1.2 **Fee-paid work** – any work commissioned by the healthcare industry for which the member is paid in cash or in kind (this includes both those which have been undertaken in the 12 months preceding the point at which the declaration is made and which are planned but have not taken place).
 - 2.1.3 **Shareholdings** – any shareholding, or other beneficial interest, in shares of the healthcare industry that are either held by the individual or for which the individual has legal responsibility (for example, children, or relatives whose full Power of Attorney is held by the individual). This does not include shareholdings through unit trusts, pensions funds, or other similar arrangements where the member has no influence on financial management.
 - 2.1.4 **Expenses and hospitality** – any expenses provided by a healthcare industry company beyond that reasonably required for accommodation, meals and travel to attend meetings and conferences (this includes both those which have been undertaken in the 12 months preceding the point at which the declaration is made and which are planned but have not taken place).
 - 2.1.5 **Investments** – any funds which include investments in the healthcare industry that are held in a portfolio over which individuals have the ability to instruct the fund manager as to the composition of the fund.
- 2.2 No personal interest exists in the case of:
 - 2.2.1 assets over which individuals have no financial control (for example, wide portfolio unit trusts and occupational pension funds) and where the fund manager has full discretion as to its composition (for example, the Universities Superannuation Scheme)
 - 2.2.2 accrued pension rights from earlier employment in the healthcare industry.

3 **Personal family interest**

- 3.1 This relates to the personal interests of a family member and involves a **current payment** to the family member of the Specialist Adviser. The interest may relate to the manufacturer or owner of a product or service being evaluated, in which case it is regarded as '**specific**', or to the industry or sector from which the product or service comes, in which case it is regarded as '**non-specific**'. The main examples include the following.
- 3.1.1 Any consultancy, directorship, position in or work for a healthcare industry that attracts regular or occasional payments in cash or in kind.
- 3.1.2 Any fee-paid work commissioned by a healthcare industry for which the member is paid in cash or in kind.
- 3.1.3 Any shareholdings, or other beneficial interests, in a healthcare industry which are either held by the family member or for which an individual covered by this Code has legal responsibility (for example, children, or adults whose full Power of Attorney is held by the individual).
- 3.1.4 Expenses and hospitality provided by a healthcare industry company (except where they are provided to a general class of people such as attendees at an open conference)
- 3.1.5 Funds which include investments in the healthcare industry that are held in a portfolio over which individuals have the ability to instruct the fund manager as to the composition of the fund.
- 3.2 No personal family interest exists in the case of:
- 3.2.1 assets over which individuals have no financial control (for example, wide portfolio unit trusts and occupational pension funds) and where the fund manager has full discretion as to its composition (for example, the Universities Superannuation Scheme)
- 3.2.2 accrued pension rights from earlier employment in the healthcare industry.

4 **Personal non-pecuniary interests**

These might include, but are not limited to:

- 4.1 a clear opinion, reached as the conclusion of a research project, about the clinical and/or cost effectiveness of an intervention under review
- 4.2 a public statement in which an individual covered by this Code has expressed a clear opinion about the matter under consideration, which could reasonably be interpreted as prejudicial to an objective interpretation of the evidence
- 4.3 holding office in a professional organisation or advocacy group with a direct interest in the matter under consideration
- 4.4 other reputational risks in relation to an intervention under review.

5 **Non-personal interests**

- 5.1 A non-personal interest involves payment that benefits a department or organisation for which a Specialist Advisor is responsible, but that is not received by the Specialist Advisor personally. This may either relate to the product or service being evaluated, in which case it is regarded as '**specific**,' or to the manufacturer or owner of the product or service, but is unrelated to the matter under consideration, in which case it is regarded as '**non-specific**'. The main examples are as follows.

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