

# **British Society of Interventional Radiology**

## **Advance Practice Course 2022**

### **Course Manual** ***for Faculty*** **(Version 4)**

**Date: 27th & 28th April 2022**

**Venue: Manchester Central Convention Complex**

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# **1. Overview of the APC 2022**

1. The BSIR APC 2022 is a practical course for senior IR trainees and junior IR consultants to advance their knowledge and skill on vascular interventions.
2. This year we focus on aortic, peripheral and venous interventions.
3. The course runs over 2 full days. The first day is on aortic interventions and the second day on peripheral arterial disease, venous interventions and difficult vascular access.
4. Each day starts with a series of lectures on vascular topics. This is followed by a number of practical workshops, patient consultation, multidisciplinary meeting on the first day and round table case based discussion on the second day.
5. The course is designed for a maximum of 48 delegates.
6. All delegates attend the lectures at the same time, then divide into small groups to rotate round the workshops. Each delegate has an individual timetable to guide you through the workshop rotations.

# **2. General Instructions for Faculty**

1. Instructions for presentations will be sent to you via email from the BSIR office. Please keep to the time allocated for your lecture, as stated in the course programme.
2. Please keep the content of lectures practical and clinical.
3. Instructors are allocated to different workshops when delegates divide into small groups, and will stay in the same workshop until the end of the day.
4. The duration of the stations and workshops varies between 7, 15, 30 or 60 minutes. Please read the information specific to your station in this pack. This will also be available at the station on the day.
5. You will be given a signal at the start, (+/-5min before the end of) and at the end of each station/workshop by the APC coordinators. Please complete the session swiftly when prompted.
6. Workshops will be set up by mid morning on both days. Please familiarise yourself with the industry representatives and their simulation devices prior to the sessions.

### 3. BSIR APC 2022 Faculty List

	Name	Hospital	Email	Workshop
1	Oluwasola Ajayi	Russells Hall Hospital/ Sandwell & West Birmingham Hospitals	<a href="mailto:oajayi@nhs.net">oajayi@nhs.net</a>	Aortic Simulation/ PVD Workshop 1
2	Stephen Butterfield	Manchester University NHS Foundation Trust	<a href="mailto:stephen.butterfield@mft.nhs.uk">stephen.butterfield@mft.nhs.uk</a>	Day1 Patient Red1/ PVD Round Table 2
3	Jonathan Ghosh (Vascular Surgery)	Manchester University NHS Foundation Trust	<a href="mailto:jonathan.ghosh@mft.nhs.uk">jonathan.ghosh@mft.nhs.uk</a>	Aortic MDM Blue (Day 1 only)
4	Neil Gupta	University Hospitals Coventry & Warwickshire NHS Trust	<a href="mailto:neil.gupta@uhcw.nhs.uk">neil.gupta@uhcw.nhs.uk</a>	Closure Device/ Venous WorkShop
5	James Harding	University Hospitals Coventry & Warwickshire NHS Trust	<a href="mailto:james.harding@uhcw.nhs.uk">james.harding@uhcw.nhs.uk</a>	Aortic MDM Blue/ PVD Workshop 3
6	Martin Hennessy	The Queen Elizabeth Hospital Glasgow	<a href="mailto:martin.hennessy@ggc.scot.nhs.uk">martin.hennessy@ggc.scot.nhs.uk</a>	Day1 Patient Blue1/ PVD Round Table 2
7	Nirmal Kakani	Manchester University NHS Foundation Trust	<a href="mailto:nirmal.kakani@mft.nhs.uk">nirmal.kakani@mft.nhs.uk</a>	EVAR plan Blue/ Day2 Patient3
8	Narayan Karunanithy	Guy's and St Thomas' NHS Foundation Trust	<a href="mailto:narayan.karunanithy@gstt.nhs.uk">narayan.karunanithy@gstt.nhs.uk</a>	VA&V Round Table (Day 2 only)
9	Ram Kasthuri	The Queen Elizabeth Hospital Glasgow	<a href="mailto:rskasthuri@gmail.com">rskasthuri@gmail.com</a>	Day1 Patient Blue2/ VA&V Round Table
10	Ananth Krishnan	Manchester University NHS Foundation Trust	<a href="mailto:a.radiology@gmail.com">a.radiology@gmail.com</a>	Aortic MDM Red (Day 1 only)
11	Raghuram Lakshminarayan	The Hull University Teaching Hospitals NHS Trust	<a href="mailto:raghu.l@nhs.net">raghu.l@nhs.net</a>	EVAR plan Red/ Day2 Patient4
12	Wing Yan Liu	University Hospitals Coventry & Warwickshire NHS Trust	<a href="mailto:wingyan.liu@nhs.net">wingyan.liu@nhs.net</a>	Course organiser
13	Chloe Mortensen	Royal Sussex Country Hospital	<a href="mailto:mortensenchloe@gmail.com">mortensenchloe@gmail.com</a>	Day1 Patient Red2/ PVD Workshop 2
14	Sapna Puppala	Leeds Teaching Hospitals NHS Trust	<a href="mailto:s.puppala@nhs.net">s.puppala@nhs.net</a>	EVAR plan Red/ Day2 Patient1
15	Mark Regi	Sheffield Teaching Hospital NHS Trust	<a href="mailto:mark.regi@nhs.net">mark.regi@nhs.net</a> <a href="mailto:mark.regi@hotmail.co.uk">mark.regi@hotmail.co.uk</a>	EVAR plan Blue (Day 1 only)
16	Dare Seriki	Manchester University NHS Foundation Trust	<a href="mailto:dare.seriki@mft.nhs.uk">dare.seriki@mft.nhs.uk</a>	Aortic Simulation/ PVD Round Table 1
17	Ferdinand Serracino-Inglott (Vascular Surgery)	Manchester University NHS Foundation Trust	<a href="mailto:ferdinand.serracino-inglott@mft.nhs.uk">ferdinand.serracino-inglott@mft.nhs.uk</a>	Aortic MDM Red (Day 1 only)
18	Nadeem Shaida	Cambridge University Hospitals NHS Foundation Trust	<a href="mailto:nadeem.shaida@addenbrookes.nhs.uk">nadeem.shaida@addenbrookes.nhs.uk</a>	Aortic Simulation/ Day2 Patient2
19	Andrew Wigham	Oxford University Hospitals NHS Foundation Trust	<a href="mailto:a.wigham@doctors.org.uk">a.wigham@doctors.org.uk</a>	Venous Workshop (Day 2 only)

## 4. Course Programme

### 4.1. Day 1 Programme (27th April 2022)

Time	DAY 1 Sessions	Learning objectives	Speaker
08:30-08:50	Registration & Coffee		
08:50-09:10	Course introduction & housekeeping (20min)		Nadeem/Winnie
09:10-09:30	EVAR - Elective (20min)	Planning for difficult anatomy Considerations for different devices	Raghu Lakshminarayan
09:30-09:50	EVAR - Rupture (20min)	Clinical assesement & patient selection Emergency team & theatre set up	Mark Regi
09:50-10:10	EVAR - Endoleak (20min)	Imaging and patient selection Endovascular treatment options for endoleak	Nadeem Shaida
10:10-10:40	TEVAR - Acute & subacute (30min)	Fundamental planning for TEVAR Patient selection & technical consideration	Sapna Puppala
10:40-11:00	FEVAR - Planning (20min)	Fundamental planning for FEVAR Tips and tricks for success	Ananth Krishnan
11:00-11:20	Coffee Break (20min)		
	Rooms set up & Candidates divides into small groups (15min)		
11:20-12:20	Day 1 First Workshop Rotation - See individual timetable [60min workshop rotation + 10min transition]		
12:30-13:30	Lunch (60min)		
13:30-14:30	Day 1 Second Workshop Rotation - See individual timetable [60min workshop rotation + 10min transition]		
14:40-15:00	Coffee Break (20min)		
15:00-16:00	Day 1 Third Workshop Rotation - See individual timetable [60min workshop rotation + 10min transition]		
16:10-16:30	Closing of Day 1 & Feedback (20min)		

## 4.2. Day 2 Programme (28th April 2022)

Time	DAY 2 Sessions (AM)	Learning objectives	Speaker
08:45-09:00	Registration & Coffee		
09:00-09:15	<b>Carotic stenting (15min)</b>	Patient selection & planning/ Techniques & pitfalls	<b>Raghu Lakshminarayan</b>
09:15-09:30	<b>Visceral arterial stenting (15min)</b>	Patient selection & planning/ Tips and tricks for success	<b>Ananth Krishnan</b>
09:30-09:45	<b>Infrapopliteal angioplasty (15min)</b>	Tips and tricks for success Perfusion software	<b>James Harding</b>
09:45-10:00	<b>SFA angioplasty (15min)</b>	Clinical assessment & patient selection Techniques - break back/drug eluting/stenting	<b>Stephen Butterfield</b>
10:00-10:15	<b>Aorto-iliac occlusive disease (15min)</b>	Patient selection, techniques, tips and tricks, treatment of complications	<b>Sapna Puppala</b>
10:15-10:30	Coffee Break		
10:30-10:45	<b>Dialysis fistula (15min)</b>	Clinical assessment & patient selection Thrombectomy devices, tips & tricks	<b>Neil Gupta</b>
10:45-11:00	<b>Difficult vascular access (15min)</b>	Clinical consideration & patient selection Access options, tips & tricks	<b>Ram Kasthuri</b>
11:00-11:15	<b>Deep vein thrombosis (15min)</b>	Clinical assessment, imaging & patient selection Techniques, devices, follow up	<b>Andrew Wigham</b>
11:15-11:30	<b>Pulmonary embolism (15min)</b>	Clinical assessment, imaging & case selection Thrombectomy techniques, devices, complications	<b>Narayan Karunanithy</b>
11:00-11:20	Coffee Break (20min)		
	Rooms set up & Candidates divides into small groups (15min)		
11:45-12:45	Day 2 First Workshops Rotation - See individual timetable [60min workshop rotation + 10min transition]		
12:55-13:45	Lunch (50min)		
13:45-14:45	Day 2 Second Workshop Rotation - See individual timetable [60min workshop rotation + 10min transition]		
14:55-15:55	Day 2 Third Workshop Rotation - See individual timetable [60min workshop rotation + 10min transition]		
16:05-16:30	Closing of APC & Feedback (25min)		

## 5. Individual Workshop Timetable - Delegate \_\_\_\_\_

### 5.1. Individual Day 1 Workshop Timetable

11:20-11:50	Day 1 First Workshop Rotation - Part 1 [30min workshop + 5 min transition]
11:55-12:25	Day 1 First Workshop Rotation - Part 2 [30min workshop + 5 min transition]
12:30-13:30	Lunch (60min)
13:30-14:00	Day 1 Second Workshop Rotation - Part 1 [30min workshop + 5 min transition]
14:05-14:35	Day 1 Second Workshop Rotation - Part 2 [30min workshop + 5 min transition]
14:40-15:00	Coffee Break (20min)
15:00-15:30	Day 1 Third Workshop Rotation - Part 1 [30min workshop + 5 min transition]
15:35-16:05	Day 1 Third Workshop Rotation - Part 2 [30min workshop + 5 min transition]
16:10-16:30	Closing of Day 1 & Feedback (20min)

### 5.2. Individual Day 2 Workshop Timetable

11:45-12:15	Day 2 Workshops Rotation - Part 1 [30min workshop + 5 min transition]
12:20-12:50	Day 2 First Workshops Rotation - Part 2 [30min workshop + 5 min transition]
12:55-13:45	Lunch (50min)
13:45-14:15	Day 2 Second WorkShop Rotation - Part 1 [30min workshop + 5 min transition]
14:20-14:50	Day 2 Second WorkShop Rotation - Part 2 [30min workshop + 5 min transition]
14:55-15:25	Day 2 Third WorkShop Rotation - Part 1 [30min workshop + 5 min transition]
15:30-16:00	Day 2 Third WorkShop Rotation - Part 2 [30min workshop + 5 min transition]
16:05-16:30	Closing of APC & Feedback (25min)

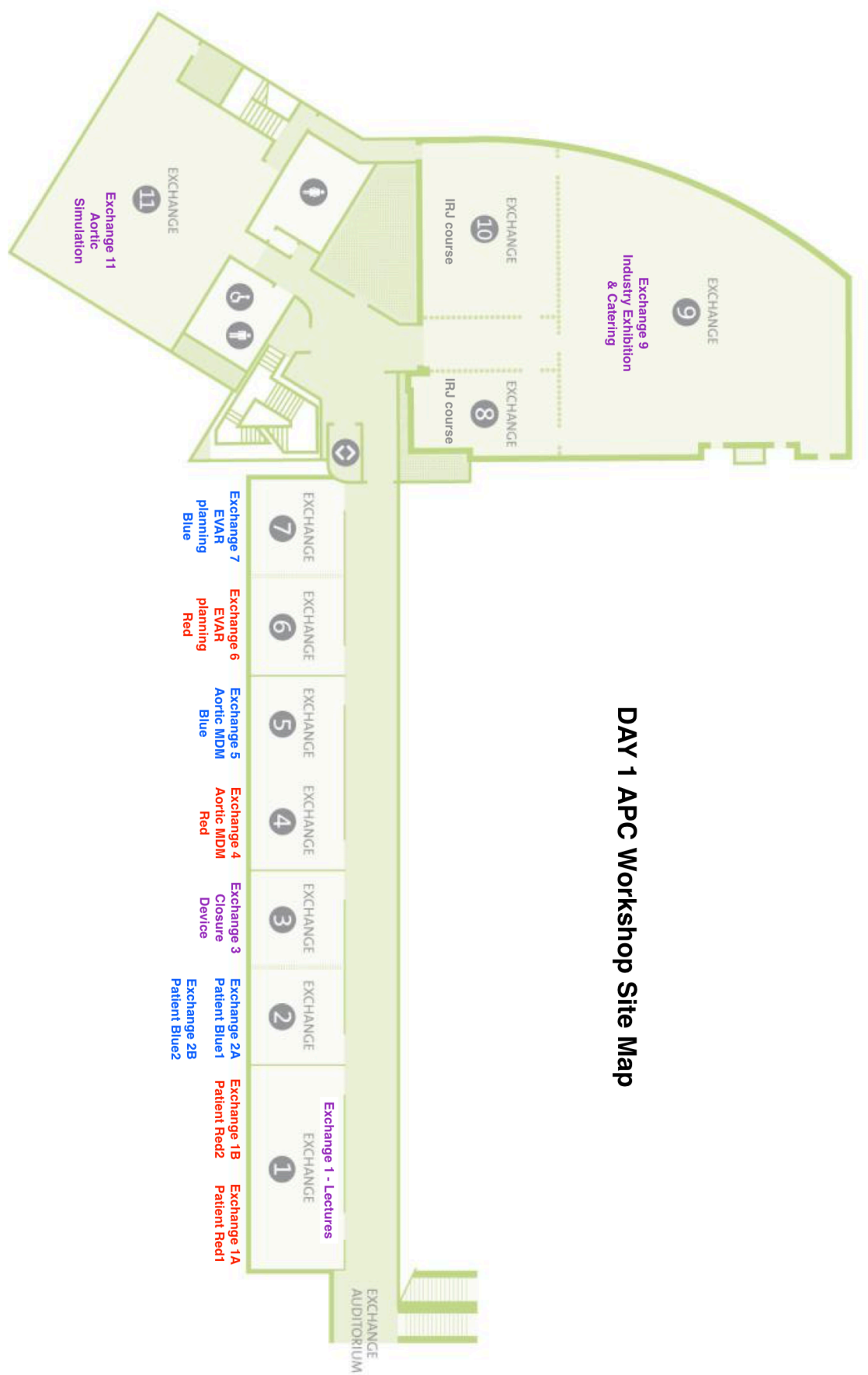


## 6. Workshops Layout

### 6.1. Day 1 Workshop Plan

Rm	Workshop	Description & Content	Number of people in room at any one time	Duration (xRounds)
1a	Patient (Red 1)	Reading (1 min) - Patient consultant (7 min) - Questions & Feedback (5min)	1 delegate 1 instructor - <b>Stephen</b> 1 actor	15min (x12)
1b	Patient (Red 2)	Reading (1 min) - Patient consultant (7 min) - Questions & Feedback (5min)	1 delegate 1 instructor - <b>Chloe</b> 1 actor	15min (x12)
2a	Patient (Blue 1)	Reading (1 min) - Patient consultant (7 min) - Questions & Feedback (5min)	1 delegate 1 instructor - <b>Martin</b> 1 actor	15min (x12)
2b	Patient (Blue 2)	Reading (1 min) - Patient consultant (7 min) - Questions & Feedback (5min)	1 delegate 1 instructor - <b>Ram</b> 1 actor	15min (x12)
3	Closure Device	Station 1 - <b>Cordis</b> - MYNXGRIP Station 2 - <b>Terumo</b> - ANGIO-SEAL Evolution	4 delegates (2/Stand) 1 intstructor - <b>Neil</b> 2 reps	15min (x12) 7min per Stand (x24)
4	Aortic MDM (Red)	MDT Discussion on Aortic Cases	4 delegates 1 Radiologist - <b>Ananth</b> 1 Surgeon - <b>Ferdinand</b>	30min (x6)
5	Aortic MDM (Blue)	MDT Discussion on Aortic Cases	4 delegates 1 Radiologist - <b>James</b> 1 Surgeon - <b>Jonathan</b>	30min (x6)
6	EVAR Planning (Red)	8 Laptops with EVAR sizing software and case library - <b>Gore</b> Instructor could also arrange to transfer own cases.	8 delegates 2 Radiologists - <b>Raghu &amp; Sapna</b> 1 to 2 Reps	1 hour (x3)
7	EVAR Planning (Blue)	5 Laptops with EVAR sizing software and case library - <b>Terumo</b>	8 delegates 2 Radiologists - <b>Mark &amp; Nirmal</b> 1 to 2 Reps	1 hour (x3)
11	Aortic Simulation Workshop	<b>4 STANDs:</b> Stand 1 - <b>Terumo</b> -Aortic stent demo & stent deployment - <b>Dare</b> Stand 2 - <b>Gore</b> - Angio Flex2 Symbionix simulator & stent deployment - <b>Nadeem</b> Stand 3 - <b>Cook</b> - Arcrylic model & stent deployment - <b>Sola</b> Stand 4 - <b>Cordis</b> - <b>InCraft</b> stent demo	16 delegates (4/Stand)  3 Radiologists - <b>Sola, Dare &amp; Nadeem</b> 4 to 6 Reps	1 hour (x3)  15min per Stand (x12)
9	Exhibition			

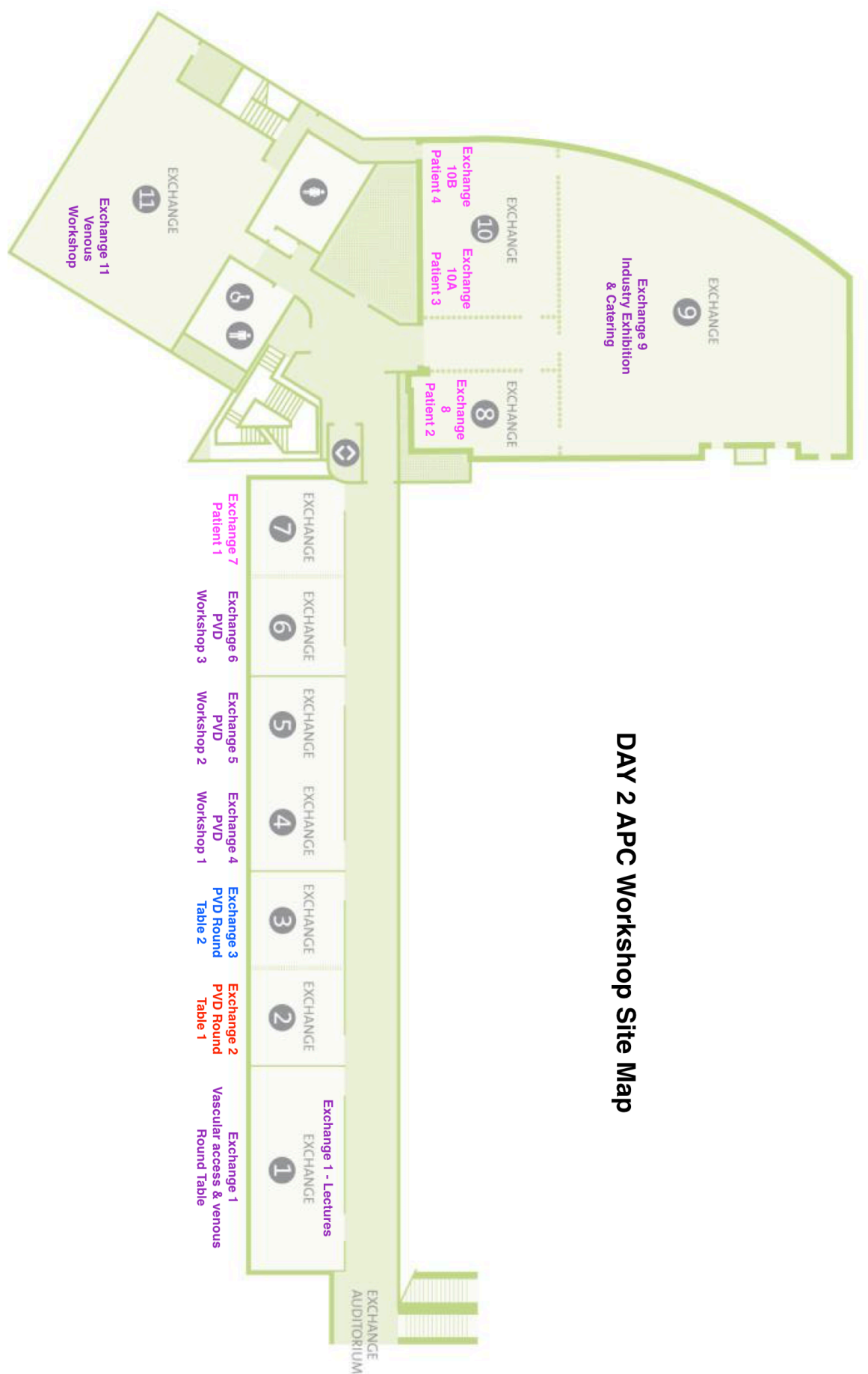
6.2. Day 1 Workshop Site Map



## 6.3. Day 2 Workshop Plan

Rm	Workshop	Description & Equipment	Number of people in room at any one time	Duration (xRounds)
1	Vascular Access & Venous Round Table	<b>Instructors please bring cases for MDT discussions</b>	8 delegates 2 Radiologists - <b>Ram &amp; Narayan</b>	30min (x6)
2	PVD Round Table 1	<b>Instructors please bring cases for MDT discussions</b>	4 delegates 2 Radiologists - <b>Ananth &amp; Dare</b>	30min (x6)
3	PVD Round Table 2	<b>Instructors please bring cases for MDT discussions</b>	4 delegates 2 Radiologists - <b>Steve &amp; Martin</b>	30min (x6)
4	PVD workshop 1	<b>2 STANDS:</b> Stand 1 - <b>Boston Scientific</b> - <b>Jetstream</b> Stand 2 - <b>Shockwave</b> - <b>Shockwave</b>	4 delegates intstructor - <b>Sola</b> 2 reps	15min (x12) 7min/stand
5	PVD workshop 2	<b>Cook</b> - Peripheral vascular simulator - arcylic & symbionix	4 delegate 1 Instructor - <b>Chloe</b> 2 reps	15min (x12)
6	PVD workshop 3	<b>2 STANDS:</b> Stand 1 - <b>Cordis</b> - <b>Outback Elite</b> demo Stand 2 - <b>Abbott</b> - <b>ProGlide</b> demo & deployment & <b>Supera</b> demo	4 delegates (2/Stand) 1 intstructors - <b>James</b> 2 reps	15min (x12) 7min/stand
7	Patient 1	Reading (1 min) - Patient consultant (7 min) - Feedback (5min)	1 delegate 1 instructor - <b>Sapna</b> 1 actor/actress	15min (x12)
8	Patient 2	Reading (1 min) - Patient consultant (7 min) - Feedback (5min)	1 delegate 1 instructor - <b>Nadeem</b> 1 actor/actress	15min (x12)
10a	Patient 3	Reading (1 min) - Patient consultant (7 min) - Feedback (5min)	1 delegate 1 instructor - <b>Nirmal</b> 1 actor/actress	15min (x12)
10b	Patient 4	Reading (1 min) - Patient consultant (7 min) - Feedback (5min)	1 delegate 1 instructor - <b>Raghu</b> 1 actor/actress	15min (x12)
11	Venous Workshop	<b>4 STANDS:</b> Stand 1 - <b>Penumbra</b> - <b>Indigo</b> Stand 2 - <b>Boston Scientific</b> - <b>Angiojet</b> Stand 3 - <b>Inari Medical</b> - <b>-FlowTreiver</b> Stand 4 - <b>Merit</b> - <b>HERO &amp; Surfacr simulator</b>	16 delegates (4/Stand) 2 Radiologists - <b>Neil &amp; Andy</b> 4 to 6 Reps	1 hour (x3)  15min/Stand
9	Exhibition			

6.4. Day 2 Workshop Site Map

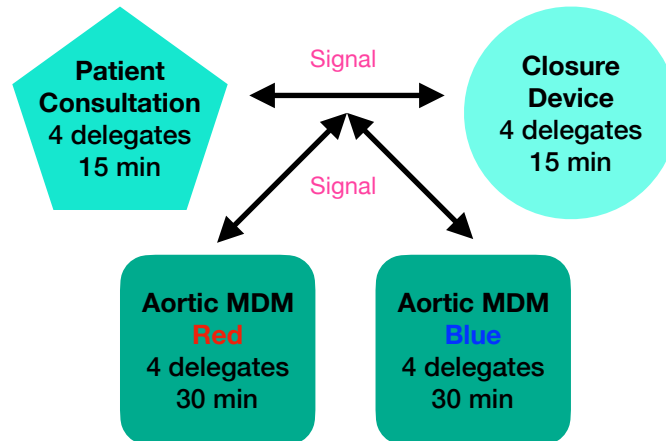


## 7. Workshop Rotations

Room plan is subject to change (Page 7 to 10). Clear instructions with regards to any room change will be given to you at the time of registration each day.

### 7.1. Day 1 Workshop Rotations

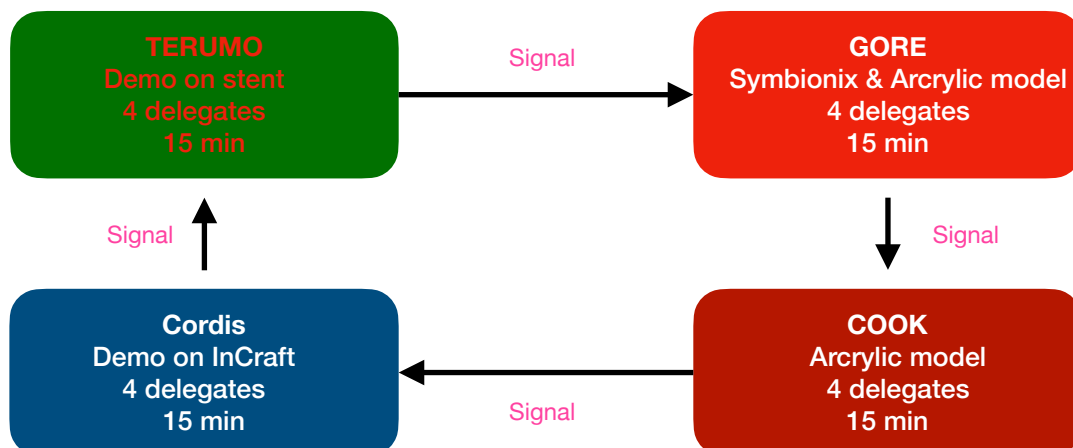
#### 7.1.1. Day 1 Workshop Rotation X1 - 16 delegates - 60 minutes



#### 7.1.2. Day 1 Workshop Rotation Y1 - 16 delegates - 60 minutes

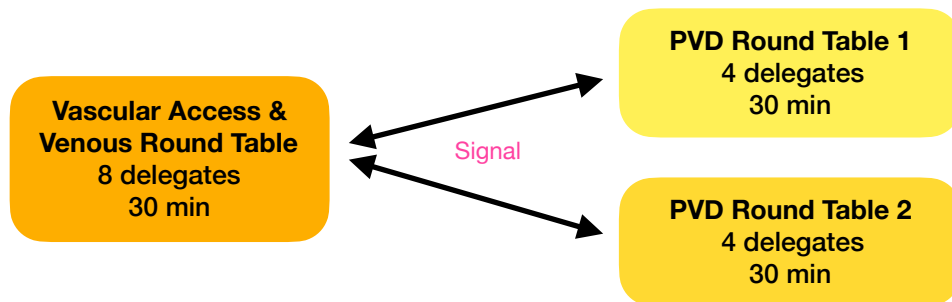


#### 7.1.3. Day 1 Workshop Rotation Z1 - 16 delegates - 60 minutes

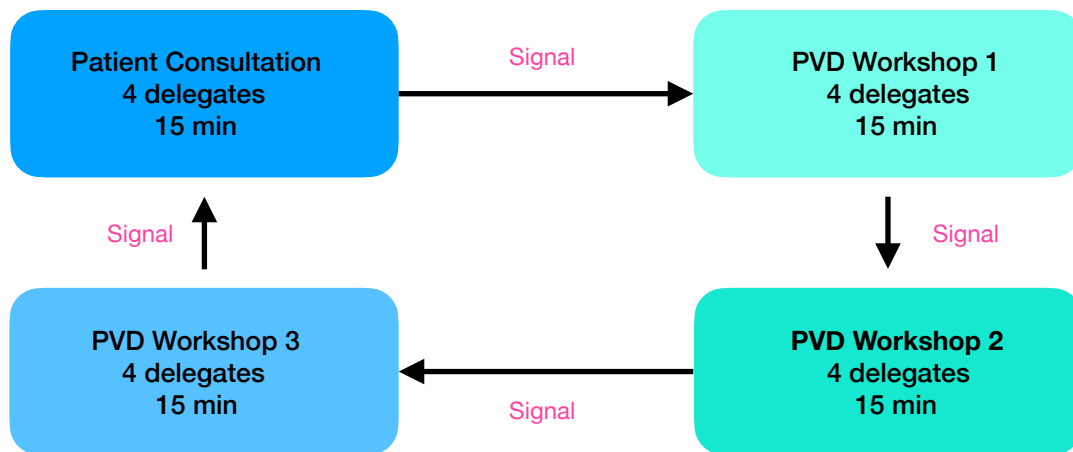


## 7.2. Day 2 Workshop Rotations

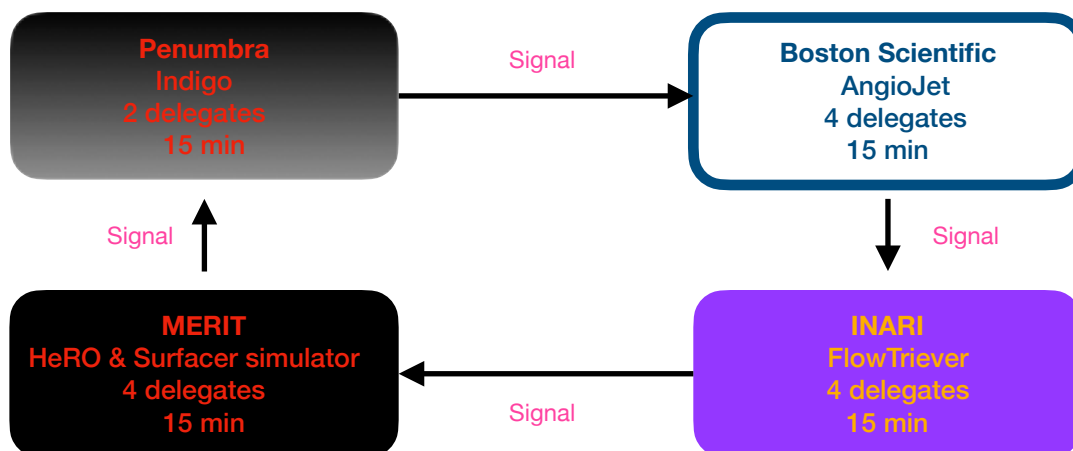
### 7.2.1. Day 1 Workshop Rotation X2 - 16 delegates - 60 minutes



### 7.2.2. Day 1 Workshop Rotation Y2 - 16 delegates - 60 minutes



### 7.2.3. Day 1 Workshop Rotation Z2 - 16 delegates - 60 minutes



## 8. Instructions on Day 1 workshops

### 8.1. Patient Consultation Stations - Rotation X1

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#### Station/ Instructor

- **Exchange 1A** - Patient Red 1 - [Stephen Butterfield](#)
- **Exchange 1B** - Patient Red 2 - [Chloe Mortensen](#)
- **Exchange 2A** - Patient Blue 1 - [Martin Hennessy](#)
- **Exchange 2B** - Patient Blue 2 - [Ram Kasthuri](#)

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#### Station Overview

- Each station will run 12 times on Day 1, with lunch break and a coffee break in between.
- This is a one instructor to one delegate session, with actor/actress acting as the patient.
- Delegate will be asked to read the clinical scenario summary provided outside the station, then enter the station to interview the actor/actress, followed by feedback session led by the instructor.

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#### Objectives for Delegates

- To develop skills and confidence on effective exchange of information between delegate and patient to ensure good decision making, leading to informed consent.

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#### Session Plan - 15 minutes



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#### Recommendations for Instructors

- Please read the clinical scenario which will be available at the station.
- Actors and actresses have been given the clinical scenario and a suggested list of questions to ask the delegates prior to APC. Any further suggestions should be communicated directly to the actor/actress at the station.
- Avoid interruption during the patient consultation.
- Encourage delegate to feedback on own performance and allow actor/actress to comment.
- Give specific critique and constructive feedback.
- Focus on communication skills and correct knowledge as appropriate, but avoid getting into too much details on technical considerations, clinical evidence or complication rates, etc.

### 8.2. Closure Device Workshop - Rotation X1

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#### Station/ Instructor

- **Exchange 3** - Closure device - [Neil Gupta](#)

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#### Station Overview

- This workshop comprises of 2 closure device stations.

- Delegates enter this workshop in group of 4 every 15min and split into two groups to learn each closure device in 7 min, then swap over.
- Each station will run 24 times on Day 1, with lunch break and a coffee break in between.
- Demonstrations on closure devices are done by industry reps.
- Delegates have opportunities to deploy a device.

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## Objectives for Delegates

- To learn how to deploy vascular closure devices following the manufacturers' IFU
- To learn tips and pitfalls on closure devices from instructor.

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## Session Plan - 15 min




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## Recommendations for Instructors

- Oversee the workshop and be prepared to answer questions from delegates about closure devices.
- Share experience on challenging cases.

## 8.3. Aortic Multidisciplinary Meeting (MDM) - Rotation X1

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### Station/ Instructor

- **Exchange 4** - Aortic MDM (Red) - [Ananth Krishnan & Ferdinand Serracino-Inglott \(VS\)](#)
- **Exchange 5** - Aortic MDM (Blue) - [James Harding & Jonathan Ghosh \(VS\)](#)

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### Station Overview

- This station runs 6 times on Day 1, with lunch break and a coffee break in between.
- Delegates enter the Aortic MDM in group of 4 and have 30 minutes in this station.
- The imaging of cases are shown by instructors to all delegates in the station, followed by multidisciplinary discussion on these cases.

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## Objectives for Delegates

- To learn how to manage complex aortic disease with a multidisciplinary approach.
- To learn how to communicate effectively in a MDM.

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## Session Plan - 30 minutes

- Round table discussions on aortic cases - 4 delegates, 1 IR & 1 Vascular Surgeon



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## Requirement for Instructors

- Each instructor please bring 4 to 6 thoracic or abdominal aortic cases for MDM discussion.
- Please bring these cases in your own laptop, to be connected to an external monitor.
- Please inform course organiser on [wingyan.liu@nhs.net](mailto:wingyan.liu@nhs.net) as soon as possible, if the above cannot be arranged or if any IT/AV support is required.

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## Recommendations for Instructors

- Encourage all delegates to contribute to the MDM discussions.
- Include a combination of thoracic, abdominal aortic cases and endoleak.

## 8.4. EVAR Planning Workshop (Red) - Rotation Y1

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### Station/ Instructor

- **Exchange 6** - EVAR Planning (Red) - [Raghuram Lakshminarayan & Sapna Puppala](#)

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### Station Overview

- This workshop runs 3 times on Day 1, with lunch break and a coffee break in between.
- Delegates enter the EVAR planning workshop in group of 8 and have 60 minutes in this workshop.
- Instructors will guide delegates through EVAR sizing on preloaded cases in laptops provided.

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### Objectives for Delegates

- To learn how to plan for EVAR using sizing softwares.
- To learn tips and potential pitfall on complex cases during planning stage.

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### Session Plan - 60 minutes

- 8 (+/2 TBC) laptops with EVAR sizing softwares provided by **GORE**, to share among 8 delegates and 2 instructors.
- Laptops contains case library for training.

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### Recommendations for Instructors

- Should instructors wish to use own cases, please liaise with **GORE** rep - Ian Wilkie (Mobile: 07815461953 / Email: [iwilkie@wlgore.com](mailto:iwilkie@wlgore.com))

## 6.4. EVAR Planning Workshop (Blue) - Rotation Y1

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### Station/ Instructor

- **Exchange 7** - EVAR Planning (Blue) - [Mark Regi & Nirmal Kakani](#)

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## Station Overview

- This workshop runs 3 times on Day 1, with lunch break and a coffee break in between.
- Delegates enter the EVAR planning workshop in group of 8 and have 60 minutes in this workshop.
- Instructors to guide delegates through EVAR sizing on preloaded cases in laptops provided.

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## Objectives for Delegates

- To learn how to plan for EVAR using sizing softwares.
- To learn tips and potential pitfall on complex cases during planning stage.

---

## Session Plan - 60 minutes

- 5 laptops with EVAR sizing softwares provided by **TERUMO**.
- 2 delegates to share 1 laptop (x4) ; 2 instructors to share 1 laptop.
- Laptops contains case library for training.

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## Recommendations for Instructors

- Should instructors wish to get information on case library in the laptops, please contact with **TERUMO** rep - Adrian Lancaster (Email: [a.lancaster@terumoaortic.com](mailto:a.lancaster@terumoaortic.com))

## 8.5. Aortic Simulation Workshop - Rotation Z1

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### Station/ Instructor

- **Exchange 11 - Stand 1 - TERUMO - Dare Seriki**
- **Exchange 11 - Stand 2 - GORE - Nadeem Shaida**
- **Exchange 11 - Stand 3 - COOK - Oluwasola Ajayi**
- **Exchange 11 - Stand 4 - CORDIS - Rep**

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### Station Overview

- This workshop comprises of 4 Aortic Simulation Stands.
- Delegates enters this workshop in group of 16 every 60 min and split into 4 groups to see the demo on different manufacturers' aortic devices.
- Each stand will run 12 times on Day 1, with lunch break and a coffee break in between.
- Demonstrations on aortic devices are done by industry reps.
- Each delegate will have the opportunity to use the aortic simulation device and deploy a type of aortic stent.

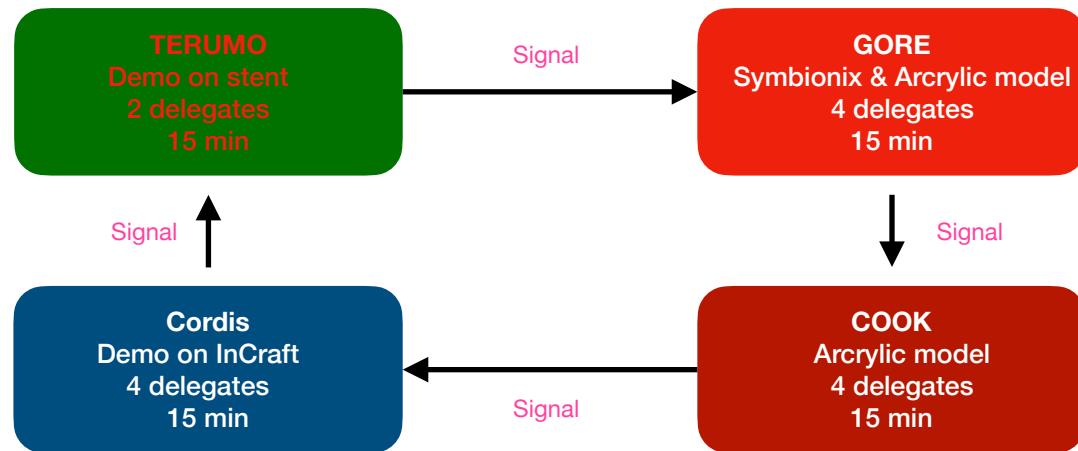
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### Objectives for Delegates

- To be introduced to some of the different aortic stents available in the market.
- To learn and have hands on experience on deployment of these stents following the manufacturers' IFU

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## Session Plan - 60 minutes



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Recommendations for

### Instructors

- Discuss and assist industry reps to set up the demo +/- simulator, and plan how to deliver the training session to delegates before the start of first workshop session.
- Not all delegates will get hands on in every stand due to time constrain. Please ensure delegates has taken turns to use the simulators and has the opportunity to deploy one stent after rotating through the four stands.

## 9. Instructions on Day 2 workshops

### 9.1. Vascular Access & Venous Round Table - Rotation X2

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#### Station/ Instructor

- **Exchange 1** - Vascular access & venous round table - [Ram Kasthuri & Narayan Karunanithy](#)

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#### Station Overview

- This station runs 6 times on Day 2, with lunch break in between.
- Delegates enter the Aortic MDM in group of 8 and have 30 minutes in this station.
- The imaging of cases are shown by instructors to all delegates in the station, followed by round table discussion on these cases.

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#### Objectives for Delegates

- To learn how to manage complex vascular access problem and venous disease.
- To learn how to communicate effectively with other radiology colleagues.

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#### Session Plan - 30 minutes

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#### Requirement for Instructors

- **Each instructor please bring 4 to 6 complex vascular access or venous cases for round table discussion.**
- **Please bring these cases in your own laptop, to be connected to the AV system.**
- **Please inform course organiser on [wingyan.liu@nhs.net](mailto:wingyan.liu@nhs.net) as soon as possible, if the above cannot be arranged or if any IT/AV support is required.**

---

#### Recommendations for Instructors

- Encourage every delegates to contribute to the round table discussions.
- Include a combination of dialysis line access, complex fistula problem and venous cases.

### 9.2. Peripheral Vascular Disease (PVD) Round Table - X2

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#### Station/ Instructor

- **Exchange 2** - PVD Round Table 1 - [Ananth Krishnan & Dare Seriki](#)
- **Exchange 3** - PVD Round Table 2 - [Stephen Butterfield & Martin Hennessy](#)

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#### Station Overview

- This station runs 6 times on Day 2, with lunch break in between.
- Delegates enter this station in group of 4 and have 30 minutes in this station.
- The imaging of cases are shown by instructors to all delegates in the station, followed by round table discussion on these cases.

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## Objectives for Delegates

- To learn how to manage complex peripheral vascular disease.
- To learn how to communicate effectively with other radiology colleagues.

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## Session Plan - 30 minutes

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### Requirement for Instructors

- Each instructor please bring 4 to 6 complex cases of peripheral vascular disease for round table discussion.
- Please bring these cases in your own laptop, to be connected to a large monitor.
- Please inform course organiser on [wingyan.liu@nhs.net](mailto:wingyan.liu@nhs.net) as soon as possible, if the above cannot be arranged or if any IT/AV support is required.

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## Recommendations for Instructors

- Encourage every delegates to contribute to the round table discussions.

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## 9.3. Peripheral Vascular Disease (PVD) Workshop 1 - Y2

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### Station/ Instructor

- **Exchange 4** - PVD Workshop 1 - [Oluwasola Ajayi](#)

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### Station Overview

- This workshop comprises of 2 arterial recanalisation stations. - Jetstream & Shockwave
- Delegates enters this workshop in group of 4 every 15min and split into two groups to learn each device in 7 min, then swap over.
- Each station will run 24 times on Day 2, with lunch break in between.
- Demonstrations on devices are done by industry reps.

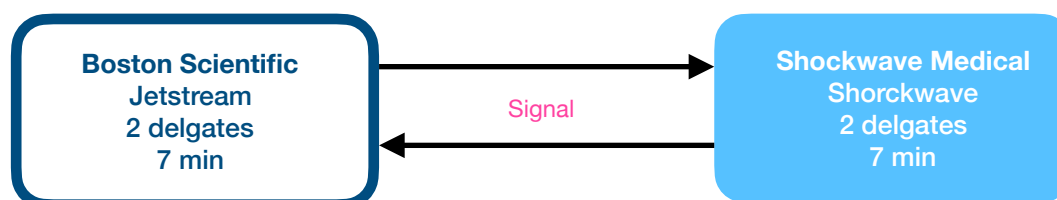
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## Objectives for Delegates

- To learn how to operate artherectomy and lithotripsy devices following the manufacturers' IFU.

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## Session Plan - 15 min



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## Recommendations for Instructors

- Oversee the workshop and be prepared to answer questions from delegates about peripheral arterial recanalisation technique.
- Share experience on challenging cases.

## 9.4. Peripheral Vascular Disease (PVD) Workshop 2 - Y2

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### Station/ Instructor

- **Exchange 5** - PVD Workshop 2 - [Chloe Mortensen](#)

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### Station Overview

- This workshop comprises of 2 peripheral arterial models - acrylic & symbionix.
- Delegates enter this workshop in group of 4 every 15min and split into two groups to practice peripheral arterial intervention techniques on the acrylic model and symbionix model respectively.
- Each station will run 12 times on Day 2, with lunch break in between.
- Demonstrations on devices are done by industry reps.

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### Objectives for Delegates

- To get hands on experience on negotiating through difficult peripheral arterial lesions.

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### Session Plan - 15 min

**COOK**  
PVD acrylic model  
2 delegates  
15 min

**COOK**  
PVD Symbionix model  
2 delegates  
15 min

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### Recommendations for Instructors

- Oversee the workshop and be prepared to answer questions from delegates about peripheral arterial recanalisation technique.
- Share experience on challenging cases.

## 9.5. Peripheral Vascular Disease (PVD) Workshop 3 - Y2

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### Station/ Instructor

- **Exchange 6** - PVD Workshop 3 - [James Harding](#)

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### Station Overview

- This workshop comprises of 2 stations. - Outback Elite & ProGlide/Supera
- Delegates enter this workshop in group of 4 every 15min and split into two groups to learn each device in 7 min, then swap over.
- Each station will run 24 times on Day 2, with lunch break in between.
- Demonstrations on devices are done by industry reps.

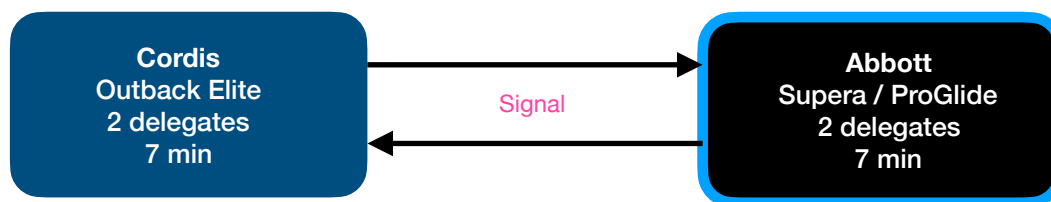
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### Objectives for Delegates

- To learn how to operate a break back device, peripheral artery stent and another closure device.

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## Session Plan - 15 min



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## Recommendations for Instructors

- Oversee the workshop and be prepared to answer questions from delegates about peripheral arterial recanalisation technique.
- Share experience on challenging cases.

## 9.6. Patient Consultation Stations - Y2

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### Station/ Instructor

- **Exchange 7** - Patient 1 - [Sapna Puppala](#)
- **Exchange 8** - Patient 2 - [Nadeem Shaida](#)
- **Exchange 10A** - Patient 3 - [Nirmal Kakani](#)
- **Exchange 10B** - Patient 4 - [Raghuram Lakshminarayan](#)

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### Station Overview

- Each station will run 12 times on Day 2, with lunch break in between.
- This is a one instructor to one delegate session, with actor/actress acting as the patient.
- Delegate will be asked to read the clinical scenario summary provided outside the station, then enter the station to interview the actor/actress, followed by feedback session led by the instructor.

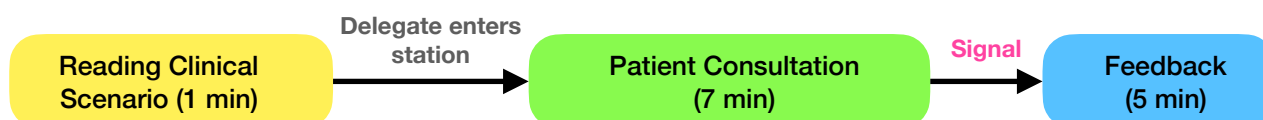
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### Objectives for Delegates

- To develop skills and confidence on effective exchange of information between delegate and patient to ensure good decision making, leading to informed consent.

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## Session Plan - 15 minutes



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## Recommendations for Instructors

- Please read the clinical scenario which will be available at the station.
- Actors and actresses have been given the clinical scenarios and a suggested list of questions to ask the delegates prior to APC. Any further suggestions should be communicated directly to the actor/actress at the station.

- Avoid interruption during the patient consultation.
- Encourage delegate to feedback on own performance and allow actor/actress to comment.
- Give specific critique and constructive feedback.
- Focus on communication skills and correct knowledge as appropriate, but avoid getting into too much details on technical considerations, clinical evidence or complication rates, etc.

## 9.7. Venous Workshop - Z2

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### Station/ Instructor

- **Exchange 11 - Stand 1 - Penumbra** - Indigo - **Neil Gupta**
- **Exchange 11 - Stand 2 - Boston Scientific** - AngioJet - **Neil Gupta**
- **Exchange 11 - Stand 3 - Inari Medical** - FlowTrieve - **Andrew Wigham**
- **Exchange 11 - Stand 4 - Merit** - HeRO Graft & Surfacar simulator - **Andrew Wigham**

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### Station Overview

- This workshop comprises of 4 venous device stands.
- Delegates enter this workshop in group of 16 every 60 min and split into 4 groups to see the demo on different manufacturers' venous devices.
- Each stand will run 12 times on Day 2, with lunch break and a coffee break in between.
- Demonstrations on venous devices are done by industry reps.

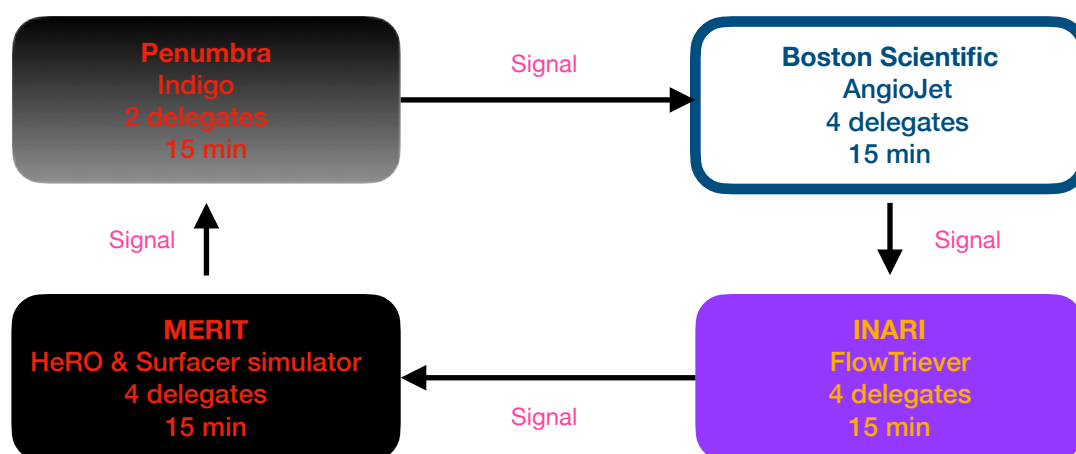
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### Objectives for Delegates

- To be introduced to some of the venous recanalisation devices available in the market.
- To learn and have hands on experience on some of these devices following the manufacturers' IFU.

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### Session Plan - 60 minutes




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### Recommendations for Instructors

- Discuss and assist industry reps to set up the demo +/- simulator, and plan how to deliver the training session to delegates before the start of first workshop session.



# 10. Patient Scenarios

## 10.1. Day 1 Patient Scenarios

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### 10.1.1. Day 1- Patient Red 1

**Room: Exchange 1 Stand A**

**Clinical scenario: Consent for elective EVAR**

#### **Description of scenario for Actor/Actress – Mr Jones**

You are a 68 year-old male retired gardener.

Presenting complaint & history of presenting complaint.

You were invited to have an Ultrasound scan of your abdomen as part of the National Abdominal aneurysm screening program. You understand that it has shown a swelling of a blood vessel in your abdomen which measures 7cm.

Past medical history. You have previously had an operation to remove a bowel cancer via a large cut in your abdomen and as a result you have been told by the Vascular surgeon that an open operation is too risky in your case. This procedure (EVAR) has been suggested as an alternative to the open operation, however you are unclear about some details of the procedure.

Relevant drug, occupation and social history. Nil relevant

Previous treatment or experience. Bowel cancer operation. The ends of the bowel were joined back up and you do not have a stoma bag.

Proposed treatment.

#### **Suggested questions for delegates (the doctors):**

1. How long will I be in hospital/ how long will it take to recover
2. Will I need any follow up treatment or scans
3. Is this procedure better than the open operation that you have been told is too risky in you?
4. Am I likely to die from this procedure and what happens if I choose not to do anything?

#### **Intro for Delegate - Day 1 Patient Red 1- Mr Jones**

Mr Jones is 68 and has a screen detected 7cm AAA. MDT decision is for EVAR although you were not present on the day of MDT. The anatomy is suitable for conventional EVAR with long iliacs and a uniform proximal sealing zone of 3cm below the renal arteries. You have been asked to consent the patient on the day of procedure.

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## 10.1.2. Day 1 - Patient Consultation - Red 2

**Room: Exchange 1 Stand B**

**Clinical scenario: Consent for pre-EVAR internal iliac artery embolisation**

### **Description of scenario for Actor – Mr Flasheart**

You are a 70 year-old male ex-footballer

Presenting complaint & history of presenting complaint. You have been told you need repair of a swollen aneurysm measuring 6.5cm in your stomach. As an additional procedure the day before the main procedure you have been told you need an additional procedure to block off one of the blood vessels to help facilitate the main operation.

Past medical history. None relevant

Relevant drug, occupation and social history. You have a much younger partner who is in her late 20s – you would like to consider the option of becoming a father again and are concerned about any impact this procedure may have on your ability to do so.

Previous treatment or experience. None

Proposed treatment.

### **Suggested questions for delegates (the doctors):**

1. Why do I need this additional procedure?
2. What are the side effects of the procedure?
3. Will it have any impact in terms of erectile dysfunction?

### **Intro for Delegate - Day 1 Patient Red 2 - Mr Flasheart**

You have been asked to consent a 70 year old man for right internal iliac artery embolisation today prior to elective EVAR tomorrow. The EVAR is for a 6.5cm abdominal aortic aneurysm. There is no suitable landing zone in the right common iliac artery and so the plan is for right internal iliac artery embolisation today with a view to landing the right limb of the EVAR in the right external iliac artery. The remainder of the arterial anatomy is normal with a patent left internal iliac.

---

### 10.1.3. Day 1 - Patient Consultation - Blue 1

**Room: Exchange 2 Stand A**

**Clinical scenario: Consent for treatment for endoleak detected on EVAR surveillance**

**Description of scenario for Actor/Actress – Mrs Brown**

You are a 69 year-old female librarian.

Presenting complaint & history of presenting complaint. You have had a previous EVAR operation to repair a swollen blood vessel in your abdomen. You have received a letter saying that a follow up scan has shown a “leak” of the repair and that you require a further procedure to treat this. You are very unsure of what this involves

Past medical history. Nil relevant

Relevant drug, occupation and social history. Keen to get back to work as soon as possible. Have a cat at home and nobody to care for it so keen to make sure you will spend as little time in hospital as possible.

Previous treatment or experience. Previous EVAR operation to repair a swelling in a blood vessel.

Proposed treatment.

**Suggested questions for delegates (the doctors):**

1. What is this sort of leak? Did they not do the repair properly? And why did they not see it at the time of the main operation?
2. Is this leak dangerous? Do I really need to have something done about this?
3. What are the side effects and risks of this procedure?

**Intro for Delegate - Day 1 Blue 1 - Mrs Brown**

You have been asked to consent Mrs. Brown who had an elective EVAR 4 years ago. Sac size at time of repair was 7cm. After the uneventful repair the sac size did not regress but remained stable on Duplex surveillance until recently. In the last year the sac has grown and is now 9cm – Duplex and CT identify a type 2 endoleak filling from the SMA via the IMA into the sac. No other endoleak is seen. MDT decision is for endoleak embolisation.

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## 10.1.4. Day 1 - Patient Blue 2

**Room: Exchange 2 Stand B**

**Clinical scenario: Consent for TEVAR for subacute aortic dissection**

**Description of scenario for - Ms Smith**

You are a 55 year-old female writer.

Presenting complaint & history of presenting complaint. You presented to the emergency department with chest pain 1 year ago – the pain was tearing in nature and spreading to your back at that stage. You spent a week in hospital with medication to control your blood pressure and after that were discharged home. You have now been called by the surgical team to tell you that you will require a procedure because the latest scan shows that the torn blood vessel is now enlarging.

Past medical history. History of aortic dissection (tearing of the aorta). High blood pressure.

Relevant drug, occupation and social history. Strong family history of similar aortic dissection cases – mother died at a young age from this and brother and one sister also have had similar chest pains. No genetic testing has been performed.

Previous treatment or experience. Nil relevant other than that described

Proposed treatment. TEVAR

**Suggested questions for delegates (the doctors):**

1. What is this procedure and how does it help me? My chest pain has got better so why do I need anything doing?
2. What are the risks of this procedure?
3. Will my daughter also get a similar problem?
4. I have read there is a chance of being paralysed after this procedure – how likely is that to happen?

**Intro for Delegate - Day 1 Patient Blue 2 - Ms Smith**

You have been asked to consent Ms Smith for TEVAR. She had an acute type B dissection 1 year go which was managed with blood pressure control. The dissection extended from 3cm distal to the left subclavian artery to the low descending thoracic aorta a few cm above the coeliac . The abdominal visceral vessels were not involved. Follow up imaging now shows sequential aneurysmal dilation of the false lumen. MDT decision is for TEVAR from just beyond the left subclavian to the low thoracic aorta.

## 10.2. Day 2 Patient Scenarios

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### 10.2.1. Day 2 - Patient 1

**Room: Exchange 9a**

**Clinical scenario: Consent for femoral-popliteal vein graft thrombolysis**

**Description of scenario for Actor/Actress - Mr/Mrs Furley**

You are a 67 year-old male/female. Occupation: Landlord/lady

*Presenting complaint & history of presenting complaint:*

Intermittent pains in right leg for the past few weeks making work difficult. (similar pains to those prior to the bypass surgery: calf aching, precipitated by walking, going up stairs, resolved when at rest). Suddenly became much worse 3/7 ago whilst working at the pub. No idea why, haven't been doing anything out of the ordinary. Unbearable at rest. Strong pain killers given intravenously in hospital have been the only thing to help.

*Past medical history:* Right leg bypass graft 1 year ago. Open heart surgery 4 years ago. High blood pressure.

*Relevant drug history:*

Blood pressure tablets, blood thinners (aspirin and clopidogrel). Been overwhelmed in last few weeks so haven't been remembering to take medications.

*Relevant social and occupational history:*

Smoking 10-20/day. No alcohol.

Runs pub with husband who is currently in hospital with a stroke.

*Previous treatment or experience:*

Need to get back to the pub as no-one else able to step in. Worried as on feet all day and the pains are making work impossible. Just want it to be better like it was after the surgery.

*Proposed treatment:*

Unblock the bypass graft with a tube in to the artery, a medication to break down the clot and/or removal of the clot, and then over 24-48 hours an ongoing infusion to prevent further clot forming. Imaging of the leg arteries and bypass graft to identify underlying narrowings which can be treated with balloon stretching (angioplasty) and/or stenting to hold narrowing open.

**Suggested questions for delegates (the doctors):**

1. What happens if I don't go ahead with it?
2. Can't I just have a new bypass graft?
3. Will I be asleep for the procedure?
4. How long will it take?
5. When can I get back to work?
6. Why has it happened? Will it happen again?

## **Intro for Delegate - Day 2 Patient 1 - Mr/Ms Furley**

67M

BG: CABG, PVD. Right fem-pop vein bypass graft 1 year ago.

Admitted acute limb ischaemia. ABPI 0.27. Cold discoloured foot. Fontaine III/ Rutherford IIA

Duplex USS: occluded bypass graft.

CT angio: Occluded bypass graft confirmed.

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### **10.2.2. Day 2 - Patient 2**

**Room: Exchange 9b**

**Clinical scenario: Consent for infrapopliteal angioplasty**

**Description of scenario for Actor/Actress - Mr/Ms McKay**

You are a retired 82 year-old male/female.

*Presenting complaint & history of presenting complaint:*

Podiatrist is worried about the toes on your right foot – a ‘sore’ doesn’t seem to be healing.

*Past medical history:*

Diabetes, ischaemic heart disease, new heart valve, stroke (5 years ago), high blood pressure, renal impairment.

*Relevant drug history:*

Warfarin, metformin, blood pressure meds

*Occupation and social history:*

Retired. Live alone with carer coming in 3x daily. Mobility limited to walking with walking frame between rooms.

Smoke 20/day. No alcohol.

*Previous treatment or experience:* Don’t like hospitals. Stay away from them!

*Proposed treatment:*

Tube to be placed in to artery in leg. Imaging of leg vessels performed. Attempts made to open up the vessels supplying the foot in order to help blood flow and healing of the ulcer.

**Suggested questions for delegates (the doctors):**

1. What happens if I go home without doing anything?
2. Will the vessels block again?
3. Can I be sedated / put to sleep / given strong pain killers?
4. I’m worried about lying still for that long – my foot/leg really hurts if I have it raised up in bed

### **Intro for Delegate - Day 2 Patient 2 - Mr/Ms McKay**

82 years. IHD, AVR, HTN, Stroke, CRF.

CLI with tissue loss. Non-healing ulcers right foot. Attempted angio prior to amputation.

CTA: PVD. Patent iliacs, SFA. Popliteal stenosis. Calcified crural vessels ? patent. Duplex – non-diagnostic due to leg swelling and raised BMI.

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### **10.2.3. Day 2 - Patient 3**

**Room: Exchange 10a**

**Clinical scenario: Consent for thrombectomy for DVT**

**Description of scenario for Actor/Actress - Mr/Ms Mertz**

You are a 21 year-old male/female dancer.

*Presenting complaint & history of presenting complaint:*

Swollen left leg associated with achey dull pain and some pins and needles. Came on slowly about 10 days ago. Unable to dance for the past week. Painful, left thigh looks twice the size of the right thigh.

*Past medical history:* None, fit and well.

*Relevant drug, occupation and social history:*

Dancer – currently at dance school. Work part time bar shifts.

Oral contraceptive pill. No other meds. No allergies.

Minimal alcohol. Non-smoker.

*Previous treatment or experience:* Never been in hospital before. Hate needles – fainted last time given an injection. Terrified won't be able to dance anymore.

Proposed treatment.

Place a tube in the vein and try to remove the clot with a clot-busting agent then prevent further blockage of the venous system with a infusion which may take up to two days.

The veins will then be imaged again and any underlying narrowings treated with balloon with a stent.

**Suggested questions for delegates (the doctors):**

1. What caused it? Will it happen again?
2. What if I don't have this procedure and just take the blood thinning drugs?
3. Will this affect my career as a dancer?
4. Will I have to take any medication?
5. Will you have to monitor me after I leave the hospital?
6. Can I be put to sleep for the procedure?
7. Will it hurt?

### **Intro for Delegate - Day 2 Patient 3 - Mr/Ms Mertz**

21F dancer. 10/7 hx left leg swelling and pain. Duplex left lower limb DVT. CTV confirms left iliofemoropopliteal DVT – extending to proximal left common iliac vein. OCP. No other risk factors. ? May-Thurner syndrome. For thrombectomy/thrombolysis DVT.

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### **10.2.4. Day 2 - Patient 4**

**Room: Exchange 10b**

**Clinical scenario: Consent for difficult dialysis access**

#### **Description of scenario for Actor/Actress - Mr/Ms Baxter**

You are a 52 year-old male/female IT consultant.

*Presenting complaint & history of presenting complaint:*

Clotted left arm dialysis fistula. Left arm swelling which is new and hasn't happened before – getting worse over the last few weeks.

4 year old fistula, has clotted every 3 months for the last year.

*Past medical history:* Diabetes. Chronic renal failure.

*Relevant drug, occupation and social history:*

Run software company. Desk based.

3 kids and a partner who is away with work a lot.

*Previous treatment or experience:*

Previous de-clotting procedures have been lengthy and painful. Hate the times when you have had to be admitted for heparin infusion following the de-clotting procedure as involves HDU admission and hasn't even worked. Have to be in hospital enough as it is with dialysis 3x week. Also nightmare co-ordinating childcare as partner currently away and who is going to look after kids. Fed up with having this procedure multiple times and the fistula just blocking off again.

*Proposed treatment:*

Re-attempt de-clotting procedure of fistula involving tube in to fistula, removing clot and then admission to hospital for infusion if required.

#### **Suggested questions for delegates (the doctors):**

1. Is there another option?
2. Can I have a new fistula?
3. What's to say it won't block off again?
4. I've heard about stents to keep the narrowings open – would I be eligible for one?

### **Intro for Delegate - Day 2 Patient 4 - Mr/Ms Baxter**

Recurrent left BC AVF thrombosis. Fistula thrombosed 2/7 ago. Confirmed on duplex. De-clotted x3 in last 12 months. In-flow and out-flow lesions have responded well to balloon angioplasty. New left arm swelling. ? recurrent lesion ? central stenosis



## 11. Course Contacts

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3. Ms Abbey Templar Phillips - Email: [meeting@bsir.org](mailto:meeting@bsir.org)