Referral Protocol for Vascular A&E or Inpatient Emergencies in Spoke Hospitals

1. Introduction

- In August 2011 an external review of the provision of vascular services serving Sussex recommended that all emergency vascular surgery be centralised at the RSCH.
- This protocol is to assist with the implementation of this service change from April 2012 onwards and with the piloting of the new referral pathway in the interim.

2. Management of vascular emergencies presenting to Spoke A&E:

- Patients arriving at a spoke hospital with a vascular condition requiring emergency intervention should have a confirmed diagnosis and be referred within one hour of arrival*.
- Suspected vascular emergencies should be discussed with the on call vascular team at RSCH via the RSCH switchboard or through a mobile number (07917041523).
- Clinical criteria to assist these discussions are contained in Appendix 1.

3. Management of in-patient vascular emergencies:

- If a vascular surgeon is on site in the out-patient clinic or day surgery unit, the case should be discussed with them during the normal working hours.
- Where arterial surgery is currently carried out, spoke hospitals should retain regularly maintained and sterilised vascular operating instrument trays. They should also maintain a selection of arterial grafts to enable on site management of intraoperative emergencies. A standardised detailed list of the required equipment will follow.
- If no on site cover or out of hours contact the Vascular on call team at the RSCH via the RSCH switchboard or through a mobile number (07917041523).
- Clinical criteria to assist these discussions are contained in Appendix 1.

4. Intra-operative vascular emergency

If vascular surgical input is required due to intra-operative vascular injury during non vascular operations:

- contact the vascular surgeon who may be on site in the out-patient clinic or day surgery unit.
- If no on site cover or out of hours, contact the Vascular on call team at the RSCH via the RSCH switchboard or through a mobile number (07917041523).
- Such conditions may either be treated on site or transferred to RSCH.

* The Provision of Services for Patients with Vascular Disease 2012 (November 2011)
5. For transfers to the Specialist Vascular Centre (SVC) at RSCH, Brighton:

- SECAmb is to be notified of the level of acuity
- A Sussex Adult Critical Care Transfer Form should be completed, copies of which are available in A&E and ICU
- One copy of the transfer form should be returned to the Sussex Critical Care Network Office which is indicated on the relevant page
- Services should be arranged to minimise transfer times (target – less than 1 hour) *
- 95% of patients should be triaged, referred and have arrived at the vascular unit within two hours of arrival at the spoke hospital. All hospitals should audit their transfer times and audit their service provision against locally agreed standards *
- For further information please refer to Sussex Critical Care Network’s Critical Care transfer guidelines.

6. List of spoke hospitals serving Sussex
   - St Richard’s Hospital, Chichester
   - Worthing Hospital
   - Princess Royal Hospital, Haywards Heath
   - Eastbourne District General Hospital
   - Conquest Hospital, Hastings
   - East Surrey Hospital, Redhill
   - Royal Sussex County Hospital, Brighton **

* The Provision of Services for Patients with Vascular Disease 2012 (November 2011)
** This is also the site of the Sussex Vascular Centre (“the hub”)
The following flow chart outlines the emergency referral process:

1. Disposition for Urgent Vascular Conditions Presenting In Hours and Out of Hours to Primary Care
2. Guidelines for Inter-Hospital Transfer of Adult Critically Ill Patients, September 2011
3. Copy of form to be sent to SVIRN
4. SVIRN Onward Care Policy
<table>
<thead>
<tr>
<th>SVIRN Version Control</th>
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<tbody>
<tr>
<td><strong>Version</strong></td>
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| v0.1 | 22/2/12 | J Gaddes | - Based on earlier protocols drafted &/or edited by HH and WY;  
- Emergency referrals (routes in) and repatriation now in separate documents | LF; DT; HH; WY; AF |
| V0.2 | 27/2/12 | J Gaddes | - LF: Advice to SECAmb re Acuity before Transfer Form completed;  
- add comment re: copy of xfer form to SVIRN  
- WY: Pts in A&E refer to RSCH on call not practical to refer to in-house team | SVIRN Core Group |
| V0.3 | 29/2/12 | J Gaddes | - Removal of sentence indicating only SRH will be effected by emergency service centralisation (based on comments from HA/ESHT)  
- Addition of draft watermark  
- For Core Group discussion 12th March 2012 | HA; AS; DT |
| Vs 0.4 | 21/3/12 | D Tomalin | - Added back in clinical criteria to support A&E staff that were in earlier versions after discussion at Core Group | SVIRN Board |
| V0.5 | 23/3/12 | H Hafez | - Edits & simplification of action section | SVIRN Board |
| V0.6 | 05/04/12 | D Tomalin | - Board amendments included; repatriation reference in flow chart changed to onward care | HH; AF; Jo G; |
| V0.7 | 10/4/12 | H Hafez | - Additions to Point 3 and 4 plus edits to Appendix 1 | AF |
| V0.8 | 18/4/12 | J Gaddes | - Addition of targets in accordance with point 6.22 of November 2011 guidance - The Provision of Services for Patients with Vascular Disease 2012 | DT; AF; AF |
| V0.9 | 23/4/12 | J Gaddes | - Edit to ‘confirmed diagnosis’ in 1st bullet of point 2 in response to comments at SVIRN Core Group meeting today | AF; DT; SA |
| V0.10 | 12/06/12 | M Jameson | - Updated in light of comments received from SVIRN Core Group.  
- Removal a stray full stop and the merging of cells in Appendix 1 | SA JG who sent on to HH |
| V0.11 | 3/7/12 | H Hafez | - Changes to appendix based on Core Group discussions | SVIRN Board |
| V0.12 | 16/7/12 | S Allen | - Changes made following SVIRN discussion (section 2, 5 and 6) | SVIRN Board (via email) |
| V0.13 | 20/7 | S Allen | - Changes suggested by John Gooderham | Core Group |
### Appendix 1 – Management in A&E and Inpatients in spoke hospitals

#### Sussex Vascular and Interventional Radiology Network
Management of Vascular Emergencies presenting to Spoke A&E

<table>
<thead>
<tr>
<th>Urgency Grade</th>
<th>Condition</th>
<th>Action</th>
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</table>
| **A**         | Arterial Haemorrhage:  
- Ruptured AAA  
- Ruptured other aneurysms/grafts  
- Aorto-visceral fistulae  
- Penetrating arterial injury  
**Non-penetrating Arterial Injury:**  
- Crush injury with ischaemia  
- Supracondylar fractures with persistent ischaemia after reduction  
- Other combined bony and arterial injury | Inform on call team at RSCH and document time  
Blue-light transfer to RSCH |
| **B**         | Acute Limb Ischaemia:  
- Embolus  
- Occluded graft  
- Thrombosed popliteal aneurysm  
**Crescendo TIA:**  
- Three or more TIAs within the preceding 24 hours  
**Limb or life threatening Diabetic Infection:**  
- Foot or calf abscess with systemic sepsis  
- Any diabetic infection with acute or acute on chronic renal failure | Inform on call team at RSCH and document time  
Blue-light transfer to RSCH |
| **C**         | Critical Limb Ischaemia:  
- Toe necrosis  
- Arterial ulcer  
- Rest pain  
- Diabetic foot with no signs of systemic sepsis | Discuss with on call team at RSCH and document  
Either admit to receiving hospital or arrange an urgent local outpatient appointment |
| **D**         | Other:  
- Microemboli  
- Vasculitis  
- Venous ulcers/bleeding  
- Above knee great saphenous vein thrombophlebitis | |

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i. Spoke hospitals are not to accept GP referrals for grades A and B vascular emergencies. Instead, referring GPs should be advised to refer directly to the RSCH.

ii. Adherence to action guidelines will be audited on regular basis.
## Sussex Vascular and Interventional Radiology Network
### Management of In-patient Vascular Emergencies at Spoke Hospitals

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<th>Urgency Grade</th>
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| **A**         | **Arterial Haemorrhage:**  
• Ruptured AAA (already inpatient)  
• Ruptured false aneurysms/grafts  
• Aorto-visceral fistulae  
• Iatrogenic injury during any procedure or intervention  
|               | **Venous Haemorrhage:**  
• Major intra-abdominal venous injury  
• Major pelvic venous injury  | ➢ Inform on call vascular team at RSCH and document  
➢ Depending on the nature and time of presentation, patients will either be transferred or treated locally if a vascular surgeon is present on site |
| **B**         | **Acute limb ischaemia:**  
• Post non-vascular diagnostic or interventional arterial puncture  
• Secondary to long bone injury/manipulation  
• Embolic/thrombotic acute ischaemia  | ➢ Inform on call team at RSCH and document time  
➢ Blue-light transfer to RSCH |
| **C**         | **Critical limb ischaemia**  
Diabetic foot  
Non-salvageable ischaemic limbs  
Chronic limb sepsis requiring major or minor amputation  | ➢ Refer to the on-site vascular service during day time  
➢ Discuss with on call team at RSCH during out of hours and weekends |