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| **Steps** | **Conventional or Distal radial artery access** | **Material** | **Steps** | **Two-step distal radial (challenging access)** | **Material** |  |
| **1** | Radial artery puncture with flush back | 21G x 4cm needle | **1** | dRA puncture with flush back | 21G x4cm needle | Terumo Glidesheath 6Fr |
| **2** | Advance the wire into the needle and the radial artery (seldinger technique) | 0.021" x 45cm wire | **2** | Advance the wire into the needle but the wire does not advance freely and fully into the radial artery | 0.021" x 45cm wire |
| **3** | Remove the 21G needle whilst keeping the wire in place within the artery |  | **3** | Fluoroscopy to ascertain the wire position in the radial artery beyond the dRA |  |
| **4** | Advance the sheath mounted on a dilator over the wire | Glidesheath 6Fr sheath with dilator | **4** | Remove the 21G needle whilst keeping the partially inserted wire in place within the artery |  |
| **5** | Confirm intra-arterial position (flush and transduce) |  | **5** | Advance the 4Fr Micropuncture Introducer mounted on a dilator over the wire | 4Fr sheath with dilator | Cook Micropuncture Pedal Introducer Set |
| **6** | Sheath in situ |  | **6** | Remove the wire and dilator whilst keeping the 4 Fr sheath in place |  |
| **7** | Continue planned procedure with diagnostic or guide catheters |  | **7** | Attach the haemostasis valve on the 4Fr sheath | CheckFlo® haemostasis valve |
|  |  |  | **8** | Confirm intra-arterial position (flush and transduce pressure) |  |  |
|  |  |  | **9** | Define the radial artery anatomy by contrast injection with fluoroscopy |  |  |
|  |  |  | **10** | With the support of an angioplasty guidewire introducer, advance an angioplasty guidewire under fluoroscopic guidance to navigate and traverse the anatomical challenges (loop, tortuosity, etc.) and advance the angioplasty guidewire beyond the radial artery at least into the brachial artery | Angioplasty guidewire introducer and angioplasty guidewire |  |
|  |  |  | **11** | Remove the 4Fr sheath whilst keeping the angioplasty guidewire in place |  |  |
|  |  |  | **12** | Advance any radial sheath mounted on a dilator over the angioplasty guidewire |  |  |
|  |  |  | **13** | Remove the dilator but keep the angioplasty guidewire in place, aspirate and flush the sheath, heparin can be given at this stage |  |  |
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|  |  |  | **14** | Advance any catheter via the angioplasty guidewire under fluoroscopy, beware of the distal angioplasty guidewire position, that it is not in a small arterial branch as the catheter can be inadvertently pushed into a small artery causing dissection or perforation. Once the catheter is in a safe place; brachial, subclavian or aorta, flush the catheter judiciously and further positioning of the catheter can be assisted with a J-tip 0.035” exchange length wire to take the catheter to the coronary ostiae in the ascending aorta |  |  |  |
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|  |  |  | **15** | Continue the planned procedure taking care not to lose radial access during catheter exchanges |  |  |  |