procedure is its best feature and is demonstrated by excellent graft patencies, and low amputation and reinfection rates.

**Disclosure of Interest:** None Declared.

## ESVS2016-1205

### A Multicentre Randomised Controlled Trial of Patient-Specific Rehearsal Prior to EVAR: Impact on Procedural Planning and Team Performance

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**Introduction:** Advancements in virtual-reality simulation now permit patient-specific rehearsal (PsR) prior to endovascular aneurysm repair (EVAR), enabling the endovascular team to practice and evaluate the procedure prior to treating the real patient, and thus optimise the treatment plan. This multicentre randomised controlled trial aims to evaluate the utility of PsR as a preoperative planning and briefing tool.

**Methods:** Patients with an infrarenal aortic or iliac aneurysm suitable for EVAR were recruited in six vascular centres across Europe. Cases were randomised to preoperative PsR (intervention group) or postoperative PsR (control group). Prior to rehearsal, the lead implanter completed a treatment plan questionnaire focussing on the choice of stentgraft, diameter, length and number of stentgrafts, and the C-arm angulation to visualise the target landing zones. The data were compared with the C-arm angles and stentgrafts used during the real EVAR procedure. Additionally, all team members (lead implanter, assistant, and scrub nurse) completed a questionnaire evaluating realism, technical issues, and human factor aspects pertinent to PsR, on a Likert scale from 1 (not at all) to 5 (very much).

**Results:** 100 patients were enrolled between September 2012 and June 2014. Following preoperative PsR, the interventionalist changed their plan to visualise proximal and distal landing zones in 25/50 (50%) and 40/49 (81.6%) cases respectively. The diameter or length of the main body of the stentgraft, contralateral limb, or iliac extensions was adjusted in 12/50 (24%), 21/50 (42%), and 16/50 (32%) of cases, respectively. At least one of the above-mentioned parameters was changed in 44/50 (88%) cases. There was no statistically significant difference in change of treatment plan between experienced (>50 EVAR cases) and inexperienced lead interventionalists ($p = 0.19$). 199 subjective questionnaires post-PsR were completed. 62/99 (63%) of lead interventionalists, 36/57 (63%) of assistants and 27/43 (63%) of scrub nurses who completed the questionnaire were highly experienced in EVAR (>50 cases). The realism of PsR was rated highly (median 4, IQR 3—4), especially that of the simulated angiographies of the aorta (median 4, IQR 4—5) and iliac vessels (median 4, IQR 4—5). The lead interventionalist found the rehearsal useful for selecting the optimal C-arm angulation (median 4, IQR 4—5). PsR was recognised as a helpful tool to prepare individual team members (median 4, IQR 3—5) and the entire team (median 4, IQR 4—4), improve communication (median 4, IQR 3—4) and encourage confidence (median 4, IQR 3—4) prior to the actual intervention.

**Conclusion:** Patient-specific rehearsal prior to EVAR can be useful as a preoperative planning and briefing tool, even for experienced interventionalists. It has a significant influence on the treatment plan. Subjective ratings indicate that this technology may facilitate planning of optimal C-arm angulation and improve non-technical skills, particularly team preparedness.

**Disclosure of Interest:** None Declared.

## ESVS2016-1310

### A 12 Week Home Exercise Programme Augmented with Nordic Pole Walking Improves the Quality of Life and ABPIs of Claudicants. Most Patients Continue to Use Their Poles and Improve Their Walking Distance at One Year

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**Introduction:** Supervised Exercise Programmes (SEPs) for claudicants can have problems with cost, availability and compliance. These problems can be avoided with Home Exercise Programmes (HEPs), but these may not be as clinically effective. Our previous RCT demonstrated that a 12 week HEP augmented with Nordic Pole Walking (NPW) significantly improved walking distance compared to Normal Walking (NW).[1]

The objectives of this study were to:

1. To collect longer-term follow up information on walking distance, speed and compliance from the participants in our original RCT of a 12 week HEP augmented with NPW.

2. To look at quality of life (QoL), and ankle-brachial pressure indices (ABPIs) after a 12 week HEP + NPW. This was done because QoL was not assessed in the RCT and there was a suggestion of improved ABPIs.

**Methods:** The 38 patients with intermittent claudication, who completed the original RCT, were followed up at 6 and 12 months. Frequency, distance and speed of walking were recorded. A further 21 claudicants were recruited to a 12 week HEP + NPW to look at QoL and ABPIs.

**Results:** Long-term compliance was excellent: 98% of the patients in the NPW group were still walking with poles at 12 months, compared to 74% of the control (NW) group. The NPW group increased their mean weekly distance (WD) to 17.5 km by 12 months, with a mean speed of 4.2 km/h. The control group increased their WD from 4.2 km to 5.6 km and speed to 3.3 km/h. Friedman's test showed the results to be highly significant ($p = 0.0061$). The resting ABPIs of the 21 patients in the second study increased significantly from baseline (mean = 0.75, SD = 0.12), to week 12 (mean = 0.85, SD = 0.12), $t = (20) - 8.89$, $p = 0.000$ (two-tailed). All WIQ and EQ5D parameters improved significantly and mean health scores improved by 79%.

**Conclusion:** The QoL of claudicants participating in a 12 week HEP augmented with NPW improved dramatically. The significant improvement in ABPI suggested in our previous study has also been confirmed. Participants continue to improve their walking distance and speed at one year with excellent compliance. Their improvement and compliance is much better than that reported by many SEPs, with lower costs. Our results justify a multi-centre RCT comparing existing SEPs with a HEP augmented by NPW.

**Disclosure of Interest:** None Declared.

## ESVS2016-1664

### The Fate of Patients with Intermittent Claudication in the 21st Century Revisited — Results from the CAVASIC Study

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