Methods: We performed a methodological assessment of the included studies, as well as a formal meta-analysis. Primary outcomes were graft patency and wound infection. Secondary outcomes were overall wound complications, length of stay and cost-effectiveness.

Results: 19 studies were reviewed, with evidence of considerable heterogeneity. Meta-analysis revealed a significantly reduced rate of primary patency in EVH (HR 1.294, 95% CI 1.027-1.630), with no significant difference with respect to wound infection (OR 0.972 95% CI 0.931-1.014).

Conclusions: EVH reduces primary patency rates after LEAB, but did not demonstrate a clear advantage with respect to wound complications. However the available data are heterogeneous and uncertainty is introduced by both evolution in technology and increasing technical experience. EVH should be used with caution and in the context of formal research.

0947: RENAL DYSFUNCTION AFTER ENDOVASCULAR ANEURYSM REPAIR: A SYSTEMATIC REVIEW AND META-REGRESSION ANALYSIS
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Introduction: Long-term survival after Endovascular Aneurysm Repair (EVAR) is poor and may be partially attributable to a post-operative deterioration in renal function. There is a need to quantitatively summarise the incidence and severity of renal dysfunction after EVAR, in order to better inform attempts to preserve renal function and improve life expectancy for this high-risk cohort.
Methods: A systematic search was performed using Medline and Embase, applying PRISMA statements. Multivariate meta-analyses were performed to estimate pooled changes in serum creatinine and creatinine clearance at 0-30 days, 1month-1year, and >1year after EVAR. The pooled incidence of significant deterioration in renal function was estimated at 1year after EVAR.
Results: 23 papers were identified for analysis. There is a pooled probability of significant deterioration in renal function at 1year of 0.18 (95%CI=0.14-0.23, F=82.5%). Serum creatinine rose by +0.05mg/dl at 30days, +0.09mg/dl at 1month-1year, and +0.11mg/dl at >1 year after EVAR, compared to pre-operative values. A statistically significant fall was seen in creatinine clearance of -5.52 ml/min, and -6.50 ml/min at 1month-1year and >1year after EVAR.
Conclusions: A clear advantage with respect to wound infection (OR 0.972 95% CI 0.931-1.014).

0967: VERTICAL VERSUS TRANSVERSE INCISION IN FEMORAL ARTERY EXPOSURE DURING VASCULAR SURGERY: A SYSTEMATIC REVIEW AND META-ANALYSIS
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Introduction: Groin wound complications either infective or lymphatic, cause significant morbidity following reconstructive arterial surgery. The aim of this review is to compare the outcome of transverse or vertical groin incisions for femoral artery exposure in vascular surgery.
Methods: The Medline, Embase, and Cochrane databases were searched for publications comparing vertical versus transverse groin incisions in femoral artery exposure during vascular surgery between 1990 and 2013.
Results: Five studies met the inclusion criteria, 2 randomized controlled trials and 3 case controlled series. The studies examined, total of 1226 groin incisions in 963 patients. Postoperative wound infection rate was significantly higher in vertical incisions (14 % in vertical versus 3 % in transverse) (OR 4.83 95% CI = 2.43 to 9.6 p < 0.00001). However there was no significant difference between the vertical or transverse incisions for postoperative lymphatic complications (11% in vertical versus 8% in transverse) (OR 1.57, 95% CI = 0.93 to 2.64 p = 0.089). None of the studies, examined factors like analgesia requirements, cosmetic outcomes and patients satisfaction rate.
Conclusions: Transverse incisions for femoral vessel access sustain fewer wound infections and should be considered as alternative to vertical incision in high-risk patients for femoral artery access in vascular reconstruction surgery.

1001: UTILITY OF RISK SCORES FOR ELECTIVE ABDOMINAL AORTIC ANEURYSM REPAIR IN A DISTRICT GENERAL HOSPITAL
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Introduction: Elective abdominal aortic aneurysm (AAA) repair is not without risk. Risk models such as Vascular Governance North-West and Medicare have been shown to have reasonable value in predicting mortality. More recently, the British Aneurysm Risk (BAR) has been proposed as a model based on UK data.
Aims: To assess the performance of VGNW, Medicare and BAR models when applied to our unit.
Methods: Retrospective review of AAA cases over 24 months. Model variables identified from case notes and 30-day mortality reviewed.
Results: There were 97 elective AAA (64 EVAR, 33 Open) and 2 mortalities. Median age at repair was 76 years (43-88). The predicted mortality for our case mix and volume was VGNW 2.79, Medicare 2.213 and BAR 1.81 deaths. ROC curves were generated for VGNW, Medicare and BAR and the area under the curve (AUC) was 0.848, 0.691 and 0.709 respectively.
Conclusions: This assessment utilised smaller numbers than large validation studies, however our unit mortality performs well when compared to all 3 models. It would be appropriate to use any of these models to monitor our unit performance over time. These procedure specific risk models may offer a practical method for comparing 30-day mortality between units.

1006: INTRODUCING A NEW INNOVATIVE METHODOLOGY FOR MONITORING AND PREDICTING PERFORMANCE IN AORTIC SURGERY
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Introduction: Current application of quality control tools in aortic surgery are mainly audit-based and outdated. Effective monitoring of performance requires adoption of robust tools and validation in clinical setting. Our aim was to construct risk-adjusted cumulative sum (CUSUM), with Sequential Testing (SPRT) and Fractional Polynomial (FP) adjustments, applied prospectively on national vascular database (NVD).
Methods: Data on aortic aneurysm repairs for 140 vascular centres in UK were retrieved between 1995-2011. Comparative league tables were made available in real-time using new application (VRAnalyser). Cumulative mortality rate, CUSUM (SPRT), VLAD, and funnel plot with highlighted individual unit’s mortality were produced in real-time. Fractional Polynomial techniques were compared with direct simulation to obtain CUSUM sensitivity and specificity.
Results: 24307 records were analysed and results produced. Median mortality rate was 2.9%. Sixteen units reported higher-than-acceptable mortality rate and were flagged on simple audit. Prospective CUSUM flagged five units only (69% reduction rate). Comparison analysis showed over-flagging behaviour of audit due to inclusion of un-stabilised early results. FP methods compared favourably with direct simulation. Both have shown that CUSUM triggers after 854 cases when performance is in control and up to 86 cases when out-of-control.
Conclusions: CUSUM (SPRT) with FP adjustment is powerful valid tool for prediction and monitoring in aortic surgery.

1112: IS DIRECT ANGIOISOMAL REVERSALISATION SUPERIOR TO INDIRECT REVASCULARISATION FOR INFRAPOPITEAL ARTERIAL DISEASE?
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Introduction: An angiosome is a block of tissue supplied by a specific artery comprising of skin, subcutaneous tissue, fascia, muscle and bone. The foot and ankle contain six angiosomes via the three tibial vessels. Revascularisation of these vessels for critical limb ischemia (CLI) can be performed directly (direct revascularisation (DR)) or indirectly (indirect revascularisation (IR)) to the affected angiosome. The aim of this systematic review was to evaluate the outcomes of DR vs. IR for CLI.