

(95 percent Confidence Interval, CI: 7.4, 8.1) before IT to 6.2 percent (95 percent CI: 5.9, 6.4) after IT. At the last follow-up, the rate of insulin independence was 48.96 percent (95 percent CI: 31.32, 66.73) and the rate of functional islet graft was 65.79 percent (95 percent CI: 47.06, 82.21). The daily insulin requirement dropped from 0.52U/kg/d to 0.21 U/kg/d. The main adverse events of islet transplantation were bleeding (7.01 percent) and the complications related to immunosuppression therapy (6.37 percent), but they were less than those of whole pancreas transplantation.

Another study with a 20-year follow-up also showed that the cost-effectiveness of islet transplantation (USD47,800 per QALY) was better than that of insulin therapy (USD71,000 per QALY). In spite of the better evidences of islet transplantation, the insufficient organ donation and issues of cell purification and immunological rejection limited islet transplantation's widespread utilization (1).

CONCLUSIONS:

The islet transplantation therapy for the patients with type I diabetes has a potential to achieve insulin independence and better cost-effectiveness, and is relatively safe. But there are some obstacles for its wide utilization.

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VP44 Rapid Health Technology Assessment – High-Intensity Focused Ultrasound For Breast Fibroadenomas And Benign Thyroid Nodules

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INTRODUCTION:

High-intensity focused ultrasound (HIFU) is a non-invasive ablative technique to treat breast fibroadenomas and benign thyroid nodules. A rapid Health Technology Assessment (HTA) was commissioned to inform the Changi General Hospital's decision on procuring a HIFU system.

METHODS:

A systematic literature search was conducted for systematic reviews, HTA reports and clinical practice guidelines on the clinical effectiveness of HIFU systems with the following PICO elements:

Patients = patients with benign breast fibroadenomas or thyroid nodules

Intervention = HIFU

Comparator = conventional treatment

Outcomes = clinical outcomes

Retrieved studies were summarized in a narrative synthesis.

RESULTS:

A few small case series showed reduction in volume of fibroadenomas/nodules in the short term and side effects were minor. Additionally, in HIFU for benign thyroid nodules, conference abstracts described a small open-label, randomized controlled trial where patients receiving HIFU had nodule volume reduction of over 30 percent compared to no reduction in the observation group, at 6 months; and a small non-randomized controlled study where volume reduction was about

70 percent in patients receiving HIFU compared to active observation.

Recent clinical guidelines do not mention HIFU as a therapeutic option for fibroadenomas/nodules.

Major United States health insurers do not cover HIFU and consider it experimental, investigational or unproven. In Germany, HIFU for breast fibroadenomas and benign thyroid nodules are covered by some insurers under special integrated care contracts.

CONCLUSIONS:

HIFU for fibroadenomas/nodules is a technology still developing its evidence base. The peer-reviewed literature comprises a few small case series and two controlled trials showing fibroadenoma/nodule reduction in the short term (up to 12 months) but no long term outcomes. Professional opinion from current guidelines does not mention HIFU as an option.

It may be prudent to await stronger evidence on long-term patient-important outcomes before offering the treatment as a hospital service. HIFU may be suitable for further clinical research.

VP46 Cost Analysis Of Popliteal Aneurysm Management

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INTRODUCTION:

Popliteal artery aneurysm (PAA) is the most common peripheral arterial aneurysm and the second most common aneurysm after abdominal aortic aneurysm (AAA). It presents a risk of occlusion, which may lead to acute ischemia and leg amputation. To prevent these risks, asymptomatic PAA >2cm and symptomatic PAA must be treated. Although open PPA repair (OPAR) is still the gold standard, endovascular PAA repair (EPAR) is increasingly used to manage PAA. The objective of this

study is to compare the cost of these two medical procedures from the hospital perspective.

METHODS:

Data were retrieved from the administrative database of Lausanne University Hospital (CHUV – Switzerland). Based on diagnostic codes and medical procedure codes, we selected all patients who underwent OPAR or EPAR between 2011 and 2015. Patient's age, length of stay and cost were compared between both groups using Student t-test.

RESULTS:

We included seventy-three patient stays (OPAR forty and EPAR thirty-three). Gender balance was identical between groups (97 percent of male), but age was statistically significantly different (OPAR 67.5, EPAR 73, $p = .04$). EPAR induced shorter mean length of stay (5.1 days versus 11.7 days, $p = .0000$) and lower mean global cost (CHF 16,555 versus CHF23,514, $p = .0085$). Cost of procedure amounted to CHF 9,536 for OPAR versus CHF 3,848 for EPAR, medical supply and implants amounted to CHF 1,284 for OPAR versus CHF 7,041 for EPAR and other costs of hospital stay amounted to CHF 12,694 for OPAR versus CHF 5,666 for EPAR. (CHF 1.00 = USD1.00 = EURO 0.93)

CONCLUSIONS:

With higher patency rate, OPAR is still associated with better medical outcomes than EPAR. But EPAR is significantly less costly than OPAR. Implant cost of EPAR is more than offset by longer length of stay and operating time of OPAR.

VP47 Health Technology Assessment Of Intensive Care Ventilators For Pediatric Patients

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