

Islet transplantation referral criteria guidelines to Scottish Islet Transplant Unit.

Subjects ≥ 18 years with insulin deficient (C peptide negative) diabetes (most commonly type 1 diabetes but also includes those with insulin deficiency secondary to pancreatectomy) may be considered for islet transplantation. The main goal of treatment is to decrease frequency of hypoglycaemia, restore awareness of hypoglycaemia and reduce glycaemic variability. Insulin independence is not a primary goal.

Since the inception of the islet transplant programme in 2009, the centre for Scotland based at the Royal Infirmary in Edinburgh has performed >80 transplants resulting in improved awareness of hypoglycaemia, significantly reduced doses of insulin and improved quality of life for patients.

Referral criteria:

In people with normal renal function the main referral criteria are recurrent episodes of hypoglycaemia¹ with evidence of impaired awareness of hypoglycaemia (IAH). It is anticipated that glycaemic control has been optimised as much as possible (CSII therapy is not a requirement). It is however recognised that many people relax their glycaemic control to avoid hypoglycaemia.

The second group of patients considered are those with previous renal transplants on immunosuppression or those who may benefit from simultaneous islet and kidney transplantation. The indication for islet transplantation in these patients may be glycaemic variability and IAH may not be present.

Relative contraindications:

1. A history of cancer except completely excised basal cell and squamous cell carcinoma.
2. Impaired renal function (in general this means a GFR <60 ml/min and ~ 30 ml/min in renal transplant patients).
3. Insulin resistant patients requiring ≥ 60 units per day to achieve an HbA1c <75 mmol/mol. An islet transplant may not be effective in achieving the main outcome goals of improvement in awareness of hypoglycaemia and reduced glycaemic variability. Measures to improve insulin sensitivity may be addressed.

Referrals:

Referrals may be made to Dr Shareen Forbes (Consultant Diabetologist, Scottish Islet Transplant Unit) and Mr John Casey and Mr Andrew Sutherland (Consultant Transplant Surgeons).

¹. One episode of hypoglycaemia in one year or two episodes in two years, requiring assistance.