

REPORT SUMMARY

1. BLOOD AND MARROW TRANSPLANTATION

There were a total of 1312 haematopoietic stem cell transplantations performed by 11 centres between 1987 and 2007; 908 were functioning by the end of 2007.

The majority of all transplants (71%) were for malignant disorders and most of these are haematological malignancies like leukaemia and lymphoma. The main non-malignant disorders transplanted were thalassaemia and aplastic anaemia.

There were 135 new transplantations done in Malaysia in 2007 with 11 follow-up centres for transplant recipients.

Mean age of new transplant patients in 2007 was 29 ± 21 years; 64% were male, 39% Malay, 41% Chinese, 10% Indian and 10% others. Autologous transplants accounted for 50%. Seventy-nine percent of the transplant source was from peripheral blood stem cells and 91% were from Human Leukocyte Antigen (HLA) identical donors.

In 2007, 24 of prevalent transplant recipients died. Underlying disease and infection were the commonest causes of death accounting for 42% and 21% respectively.

2. CORNEAL TRANSPLANTATION

There were 46 centres which provided corneal transplantation data.

One hundred and eighty-nine new corneal transplantations were reported in Malaysia in 2007. Mean age of new transplant recipients in 2007 was 47 ± 21 years. Of these, 66% were male. Thirty-three percent of recipients were Malay, 35% were Chinese, 19% were Indian and 13% were other races.

The primary diagnoses for corneal transplantation recipients in 2007 were pseudophakic bullous keratopathy (17%), cornea perforation (16%), keratoconus (15%), cornea scars (13%), failed previous cornea grafts (12%), microbial keratitis (7%) and corneal dystrophy (7%).

Fifty-eight percent of recipients were legally blind before their transplant surgery.

In 2007, 57% of donated corneas were from the USA, 27% from Sri Lanka and 16% from local sources. The mean age of the donors was 57 ± 14 years.

The commonest corneal transplantation surgery performed was penetrating keratoplasty (88%) i.e. transplantation of a full thickness cornea tissue. Graft survival at 1 year was 80%, 65% at 3 years.

3. HEART AND LUNG TRANSPLANTATION

There were a total of 18 patients with heart transplantations reported to the Registry between 1997 and 2007; eight grafts were functioning at the end of 2007 and all were followed up in Institut Jantung Negara.

In 2007 there were 2 heart transplants carried out on the same recipient whose first heart transplant failed; there was a second compatible donor organ within 24 hours and the second heart transplant succeeded.

Two thirds of the heart transplant recipients were males and 56% were Indians. The mean age of recipients was 35 ± 16 years. Ischaemic cardiomyopathy was the commonest primary diagnosis (9/18) followed by dilated cardiomyopathy (6/18).

Six recipients died in hospital following heart transplantation; four patients succumbed to late deaths after their heart transplant.

The transplant patient survival rate was 63% and 44% at 1 year and 3 years respectively.

A double lung transplant and a heart-lung transplant were performed in 2007. The latter patient died of rejection and pneumonia after 2 weeks. At the end of 2007 there were 2 patients with lung transplants surviving with functioning graft.

4. LIVER TRANSPLANTATION

There were a total of 95 liver transplantations reported to the Registry between 1993 and 2007; 56 grafts were functioning by the end of 2007.

There were 7 new liver transplantations done in Malaysia in 2007.

There were 5 follow-up centres for liver transplant recipients in 2007.

Mean age of all transplant patients was 8 ± 13 years (range 3 months to 74 years); 53% were male, 48% Chinese, 37% Malay, 8% Indian, 69% were for biliary atresia. Majority were living donor liver transplantations (78%).

At the time of transplantation the main immunosuppressive drugs used were tacrolimus (78%) and steroids (62%).

Transplant patient survival rate for the cohort 1993 to 1998 was 71% at 1 year; survival rate for the cohort 1999 to 2006 was 69% at 1 year.

5. RENAL TRANSPLANTATION

There were 48 follow-up centres for renal transplant recipients in 2007. There were 86 new renal transplants in 2007, 3 per million population per year.

The number of functioning renal transplants in 2007 was 1726. The transplant prevalence rate was 64 per million population.

In 2007, the mean age for new transplant recipients was 35±15 years, 62% were male, 12% had diabetes, 11 were anti-HCV positive at the time of transplantation.

Ninety-seven percent of prevalent renal transplant recipients were on prednisolone, 72% on cyclosporine, 21% on tacrolimus, 54% mycophenolate mofetil and 29% on azathioprine.

In 2007, 34 (2%) of prevalent transplant recipients died and 34 (2%) lost their grafts. Infection and cardiovascular disease were the commonest causes of death accounting for 33% and 18% respectively. Death at home was the third commonest cause at 10%. Renal allograft rejection accounted for 69% of graft loss.

The overall transplant patient survival rate from 1994 to 2007 was 95%, 91%, 88% and 81% at 1 year, 3 years, 5 years and 10 years respectively, while the overall graft survival rate for these years was 92%, 85%, 79% and 64% respectively.

6. HEART VALVE TRANSPLANTATION

There were a total of 172 heart valve homografts reported to the Registry between 1996 and 2007; 153 grafts were functioning at the end of 2007. Eighty-five were aortic and 87 were pulmonary valves.

Mean age of all heart valve transplant patients was 11 ± 10 years (range 3 months to 70 years); 51% were male, 61% Malay.

7. BONE AND TISSUE TRANSPLANTATION

In 2006, 90 bone allografts and 175 amniotic membranes were supplied by USM Tissue Bank.

Twenty hospitals used the bone grafts and 18 centres used the amniotic membranes. Characteristics were reported for only 36 of the recipients.

8. CADAVERIC ORGAN AND TISSUE DONATION

There were 25 donors in 2007 of which 15 were brain dead multi-organ and tissue donors and 10 were post cardiac death tissue donors. The donation rate was 0.99 donations per million population (pmp).

The mean age of the donors was 29.6 ± 18.75 years. The youngest was a 14.5 months old kidney donor while the oldest was a 68 year-old eye donor. Eighty percent were male, 56% were Chinese, 20% Malay, 12% Indian.

Six donors carried the donor pledge card. Sixteen of the donors died from accidents, 8 died from medical causes and one was a homicide. Eighty-four percent of donations took place in MOH hospitals, 8% in private hospitals and 8% from University hospitals.