

REPORT SUMMARY

1. BLOOD AND MARROW TRANSPLANTATION

There were 336 new transplantations done in Malaysia in 2014 with 11 hospitals performing transplants.

The majority of transplants were for malignant disorders and most of these are haematological malignancies like lymphoma (37%), leukaemia (30%) and plasma cell disorders (12%). Non-malignant disorders comprised 8% of the total transplants done.

Mean age of new transplant patients in 2014 was 34 ± 17 years; 57% were male, 55% Malay, 30% Chinese, 7% Indian and 8% others. Autologous transplants accounted for 55%. Ninety-two percent of the transplant source was from peripheral blood stem cells. Of the 153 allogeneic transplants 92% were from Human Leukocyte Antigen (HLA) identical donors.

In 2014, 128 of the transplant recipients died. Underlying disease and sepsis were the commonest causes of death accounting for 70% and 8% respectively.

2. CORNEAL TRANSPLANTATION

There were 7 centres which provided cornea transplantation data.

Two hundred and ninety new cornea transplantations were reported in Malaysia in 2014. Mean age of new transplant recipients in 2014 was 45 ± 22 years. Of these, 66% were male. Forty-one percent of recipients were Malay, 22% were Chinese, 19% were Indian and 16% were other races.

The primary diagnoses for cornea transplantation recipients in 2014 were keratoconus (17%), microbial keratitis (17%), corneal perforation (16%), and pseudophakic bullous keratopathy (9%).

Eighty-six percent of recipients were legally blind before their transplant surgery.

In 2014, 60% of donated corneas were from the USA, 29% from local sources and 10% from Sri Lanka. The mean age of the donors was 54 ± 17 years.

The commonest cornea transplantation surgery performed was penetrating keratoplasty (82%) i.e. transplantation of a full thickness cornea tissue. Graft survival at 1 year was 78.7%, 72.4% at 3 years and 70.5% at 5 years.

3. HEART AND LUNG TRANSPLANTATION

There were a total of 24 patients with heart transplantations reported to the Registry between 1997 and 2014. Ten grafts were functioning at the end of 2014 and all were followed up in Institut Jantung Negara.

The transplant patient survival rate was 54% and 50% at 1 year and 3 years respectively.

There were no lung transplants in 2014. At the end of the year there were 2 patients surviving with functioning graft (from a total of 9 done since 2005).

4. LIVER TRANSPLANTATION

There were a total of 137 liver transplantations reported to the Registry between 1993 and 2014; 85 grafts were functioning at the end of 2014.

There were 9 new liver transplantation done in Malaysia in 2014. There were 2 follow-up centres for liver transplant recipients in 2014.

Mean age of all transplant patients was 12.4 ± 15.9 years (range 8.9 months to 74 years); 54% were male, 50% Chinese, 37% Malay, 10% Indian, 58% were for biliary atresia. Majority were living donor liver transplantations (58%).

At the time of transplantation the main immunosuppressive drugs used were tacrolimus (88%) and steroids (64%).

Transplant patient survival rate for the cohort 1993 to 2014 was 71% at 1 year, 66% at 5 years and 58% at 10 years.

5. RENAL TRANSPLANTATION

There were 42 follow-up centres for renal transplant recipients in 2014. There were 89 new renal transplants in 2014, 3 per million population per year. Local cadaveric renal transplantation accounted for 45%, living related renal transplants 43% and a small proportion were commercial transplants done overseas (12%).

The number of functioning renal transplants in 2014 was 1844. The transplant prevalence rate was 61 per million population.

In 2014, the mean age for new transplant recipients was 39 ± 13 years, 57% were male, 11% had diabetes, 5% were anti-HCV positive, 3% were HbsAg positive at the time of transplantation.

Ninety-five percent of prevalent renal transplant recipients were on prednisolone, 44% on cyclosporine, 45% on tacrolimus, 68% mycophenolic acid and 14% on azathioprine.

In 2014, 45 (2.4%) of prevalent transplant recipients died and 47 (2.5%) lost their grafts. Infection and cardiovascular disease were the commonest causes of death accounting for 46% and 22% respectively. Died at home was the third commonest cause at 9%. Renal allograft rejection accounted for 68% of graft loss.

The overall transplant patient survival rate from 2004 to 2014 was 96%, 94%, 91% and 81% at 1 year, 3 years, 5 years and 10 years respectively, while the overall graft survival rate for these years was 93%, 88%, 83% and 67% respectively.

6. HEART VALVE TRANSPLANTATION

There were a total of 324 heart valve homografts reported to the Registry between 1996 and 2014; 278 grafts were functioning at the end of 2014. One hundred and fifty-seven were aortic and 167 were pulmonary valves.

Mean age of all heart valve transplant patients was 10.1 ± 9.5 years (range 1 month to 70 years); 54% were male, 65% Malay.

7. BONE AND TISSUE TRANSPLANTATION

In 2014, the Bone Bank of Hospital Kuala Lumpur reported receiving 6 femoral heads, 20 femur, 19 tibia, 1 humerus and 1 radius. The USM Tissue Bank received 3 femoral heads, 2 femur, 2 tibia, 2 humerus and 5 amniotic membranes while the UMMC Bone Bank received 83 femoral heads and 4 knee slices. Thirteen hospitals used the bone grafts.

8. DECEASED (CADAVERIC) ORGAN AND TISSUE DONATION

There were 270 referrals for donation with 56 donors in 2014. This translated to a conversion rate of 21%. Twenty-three were brain dead multi-organ and tissue donors and 33 were post cardiac death donors. The donation rate was 1.77 donations per million population.

The mean age of the donors was 32.4 ± 17.5 years, age range 5 – 81 years. Sixty-six percent were male, 53% were Chinese, 36% Indian, 7% Malay and 4% others.

Nine donors carried the donor pledge card. Twenty-seven of the donors died from traumatic injury, 29 died from medical causes. The organs procured were 1 heart, 9 livers, 42 kidneys. Tissues procured included 81 cornea, 9 heart valves, 14 bone, 2 skin. Almost all donations took place in Ministry of Health hospitals (51), 3 were from University hospitals and 1 was from a private hospital.