



## 1. Medical Condition

# **RENAL TRANSPLANTATION (SECONDARY TO END-STAGE RENAL DISEASE)**

## 2. Diagnosis

### A. Medical history

The aetiology of the end-stage renal disease necessitating transplantation must be well-documented with confirmation by the attending surgeon and renal physician. Although uncommon in elite athletes recent cases of renal transplantation in high-profiled athletes have been reported.

### B. Diagnostic criteria

- The diagnosis of end-stage renal disease must be accompanied by an appropriate history of documented decline in renal function confirmed by a renal physician.
- A report from the treating surgeon including surgical procedures must also be provided.

### C. Relevant medical information

It is necessary to provide the history of declining renal function and associated evidence that the criteria for renal transplantation have been met. This may be provided by the family physician with appropriate specialist endorsement.

### 3. Medical best practice treatment

#### A. Name of prohibited substances

- In the management of post-transplant patients it is possible that combination therapy may be required including the use of:
  1. Glucocorticoids
  2. Beta-Blockers
  3. Diuretics
  4. Erythropoietin (EPO)

#### B. Route

All agents should be administered orally with the exception of erythropoietin which is by either intravenous or subcutaneous injection.

#### C. Frequency

Daily doses of glucocorticoids (5-10mg daily for maintenance), beta-blockers, diuretics and EPO in accordance with current guidelines (see references). For EPO the current guidelines recommend a haemoglobin of 120g/L.

#### D. Recommended duration of treatment

The treatment is life-long with recommended annual review by a renal physician.

### 4. Other non-prohibited alternative treatments?

Following renal transplantation there is no other appropriate, non-prohibited treatment available.

## 5. Consequences to health if treatment is withheld

Most renal transplant recipients will present a history of hypertension secondary to chronic renal disease. Untreated, hypertension appears to be linked to reduced long-term graft survival. In cases where moderate graft impairment is confirmed, patients may require EPO supplementation. Given that the criteria for renal transplantation have been met the consequences of withholding treatment from these individuals will impact significantly upon the function of the transplanted kidney and ultimately have fatal consequences.

## 6. Treatment monitoring

Routine assessment of renal function including monitoring of blood pressure will be at the discretion of the renal physician.

## 7. TUE validity and recommended review process

Lifetime therapy in accordance with clinical status and an annual review is acceptable. Any changes to the therapeutic regime involving prohibited agents should be well documented endorsed by a renal physician and form the basis of a revised TUE.

At annual review, athletes on EPO should have blood tests including Hb, Hematocrit, RBC count, Reticulocyte count.

A further TUE may be issued annually after review of the appropriate parameters.

## 8. Any appropriate cautionary matters

Renal transplantation in elite athletes is not a common occurrence. However there are documented contemporary cases and the consistent application of best practice guidelines is essential.

## 9. References

1. 2003 European Society of Hypertension- European Society of Cardiology New Guidelines for treatment of Hypertension J Hypertens. 2003 Jun; 21(6):1011-53
2. KDOQI clinical practice guidelines for chronic kidney disease: Evaluation, classification, and stratification. Kidney Disease Outcome Quality Initiative. Am J Kidney Dis 39:S1-S266, 2002 (suppl 2)
3. Chobanian AV, Bakris GL, Black HR, Cushman WC, Green LA, Izzo JL Jr, Jones DW, Materson BJ, Oparil S, Wright JT Jr, Roccella EJ: The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure: The JNC 7 report. JAMA 289:2560-2572, 2003