

***Guidelines to be followed by centres, services and units in order to be designated as Reference Centres, Services and Units of the National Health System as agreed by the Interterritorial Board***

**15. KIDNEY TRANSPLANTATION IN CHILDREN**

***A. Rationale for the proposal***

► Epidemiological data on indication for transplantation.	In Spain, indication for kidney transplant in children is 4.1 per million population. In 2006 in particular, it was indicated for 28 cases.
► Data on the use of the procedure.	In Spain, kidney transplant activity in children during 2006 consisted of 58 transplants (8.5 transplants per million children).

***B. Guidelines to be followed by Centres, Services and Units in order to be designated as Reference Centres, Services and Units for kidney transplantation in children.***

<p>► Experience of the Reference Centres, Services and Units:</p> <p>- Activity:</p> <ul style="list-style-type: none"> <li>• Number of procedures (minimum and optimal) that should be performed in a year to ensure an adequate care.</li> </ul> <p>- Other data: research on the subject, postgraduate teaching, continuing training, etc.</p>	<p>A minimum of 25 kidney transplants in children in the last 5 years.</p> <p>- Hospital with undergraduate medical teaching programme.</p> <p>- Hospital with a standardized continuing training programme and participation in the undergraduate teaching programme and in the internship and residency programme of the centre.</p>
---	--

<p>► Specific resources of the Reference Centres, Services and Units:</p> <p>- Human resources required for adequate carrying out of kidney transplantations in children.</p> <p>Professional experience<sup>a</sup>:</p> <p>- Specific equipment required for the adequate care of kidney transplantations in children.</p>	<p>In addition to those generically mentioned for authorization according to Royal Decree 2070/1999, December 30<sup>th</sup>, establishing the general basis for clinical harvesting and use of human organs and the territorial coordination in donation and transplantation of organs and tissues, the centre must have the following human resources:</p> <p>- Medical surgical team, available at all times, with at least 3 surgeons, 1 nephrologists and 1 anaesthetist with the basic education specified below.</p> <p>Experience in kidney transplantation in children and urinary tract reconstructive surgery and at least 50% of the team will have experience of at least 5 years in paediatric nephrology.</p> <p>In addition to those generically mentioned for authorization according to Royal Decree 2070/1999, December 30<sup>th</sup>, establishing the general basis for clinical harvesting and use of human organs and the territorial coordination in donation and transplantation of organs and tissues, the centre must have:</p> <p>- Paediatric nephrology unit available at all times, including the following areas:</p> <ul style="list-style-type: none"> <li>• Outpatient care: <ul style="list-style-type: none"> <li>Predialysis Services. Monitoring stage V renal failure.</li> <li>Transplant recipient assessment.</li> </ul> </li> <li>• Hospitalization.</li> <li>• Kidney transplantation.</li> <li>• Depuration methods: <ul style="list-style-type: none"> <li>Hemodialysis.</li> <li>Peritoneal dialysis</li> <li>Other apheresis techniques: hemofiltration, hemoperfusion, hemodiafiltration, plasmapheresis.</li> </ul> </li> </ul> <p>- Paediatric Specialties Units:</p>
--	--

<p>► Resources from other units and services besides those belonging to the Reference Centres, Services and Units required for the adequate care of kidney transplantations in children.</p>	<ul style="list-style-type: none"> <li>• Paediatric Urology Unit with experience in complex pathologies of the urinary tract<sup>b</sup>.</li> <li>• Surgical team for kidney transplant available at all times.</li> <li>• Paediatric Intensive Care Unit with specific isolation areas for transplant.</li> <li>• Paediatric anaesthesia unit.</li> <li>• Dietician or nutritionist with experience in paediatric renal patients<sup>b</sup>.</li> <li>• Paediatric A&amp;E services.</li> <li>• Radiodiagnosis with experience in paediatric practice and availability of ultrasound, NMR and CT scan techniques, including interventional radiology.</li> <li>• Other paediatric specialties: cardiology, hepatology and gastroenterology.</li> </ul> <ul style="list-style-type: none"> <li>- Haematology, Biochemistry, Microbiology and Clinical pharmacology laboratory.</li> <li>- Immunology reference laboratory.</li> <li>- Blood bank.</li> <li>- Continuous availability of a transplant coordinator.</li> <li>- Nuclear Medicine Services with experience in paediatric techniques<sup>b</sup>.</li> <li>- Pathology anatomy services.</li> </ul>
<p>► Procedure and clinical results indicators of the Reference Centres, Services and Units<sup>b</sup>:</p>	<p><b>The indicators will be agreed with the Units that will be designated.</b></p>
<p>► Existence of an adequate IT system (Type of data that the IT system must include to allow identification of the activity and evaluation of the quality of the services provided)</p>	<p>Participation in the Spanish Registry for Kidney Transplantation in Children and completion of the required variables for calculation of activity and result indicators.</p> <ul style="list-style-type: none"> <li>- The unit must have the required data which should be sent to the Spanish National Health Service Reference Centres, Services and Units Appointment Commission Secretariat for yearly reference unit monitoring.</li> </ul>

<sup>a</sup> Experience will be accredited by certification from the hospital manager.

<sup>b</sup> Clinical results standards, agreed to by the experts group, will be assessed, initially by the Appointment Commission, while in the qualification process, as more information from the Reference Centres, Services and Units is being obtained. Once qualified by the Appointment Commission, the Quality Agency will authorize its compliance, as for the rest of guidelines.

## **Bibliography:**

1. Memoria de actividad de trasplante renal 2006 (2006 Kidney transplantation activity report). Available at: URL: [http://www.ont.es/Estadistica?id\\_nodo=19&accion=0&&keyword=&auditoria=F](http://www.ont.es/Estadistica?id_nodo=19&accion=0&&keyword=&auditoria=F).
2. Memoria de actividad. Trasplante renal. Revista Española de Trasplantes 2006; July 15 (2): 45-59.
3. Registro Americano de Enfermedad y Tratamiento Renal (American Registry for Kidney Disease and Treatment). <https://web.emmes.com/study/ped/index.htm>.
4. REPIR. Sociedad Española de Nefrología Pediátrica (Spanish society of paediatric nephrology). <http://www.aenp.es/>.