HAUTE AUTORITÉ DE SANTÉ

QUICK REFERENCE GUIDE

Kidney transplantation

Access to the French waiting list

From identification to registration: referral criteria and indications

October 2015

OBJECTIVES

- To foster access to transplantation and reduce disparities in access
- To foster access to living-donor transplantation
- To foster pre-emptive or early registrations
- To reduce registration delays

ACCESS PATHWAY TO THE KIDNEY TRANSPLANT WAITING LIST

Patients potentially concerned:

- those with an irreversible, progressive stage 4 chronic kidney disease (CKD), for whom the professionals anticipate a need for replacement therapy or a glomerular filtration rate (GFR) < 20 mL/min/1.73 m² in the next 12 to 18 months;
- those with stage 5 CKD, GFR < 15 mL/min/1.73 m², on dialysis or not.

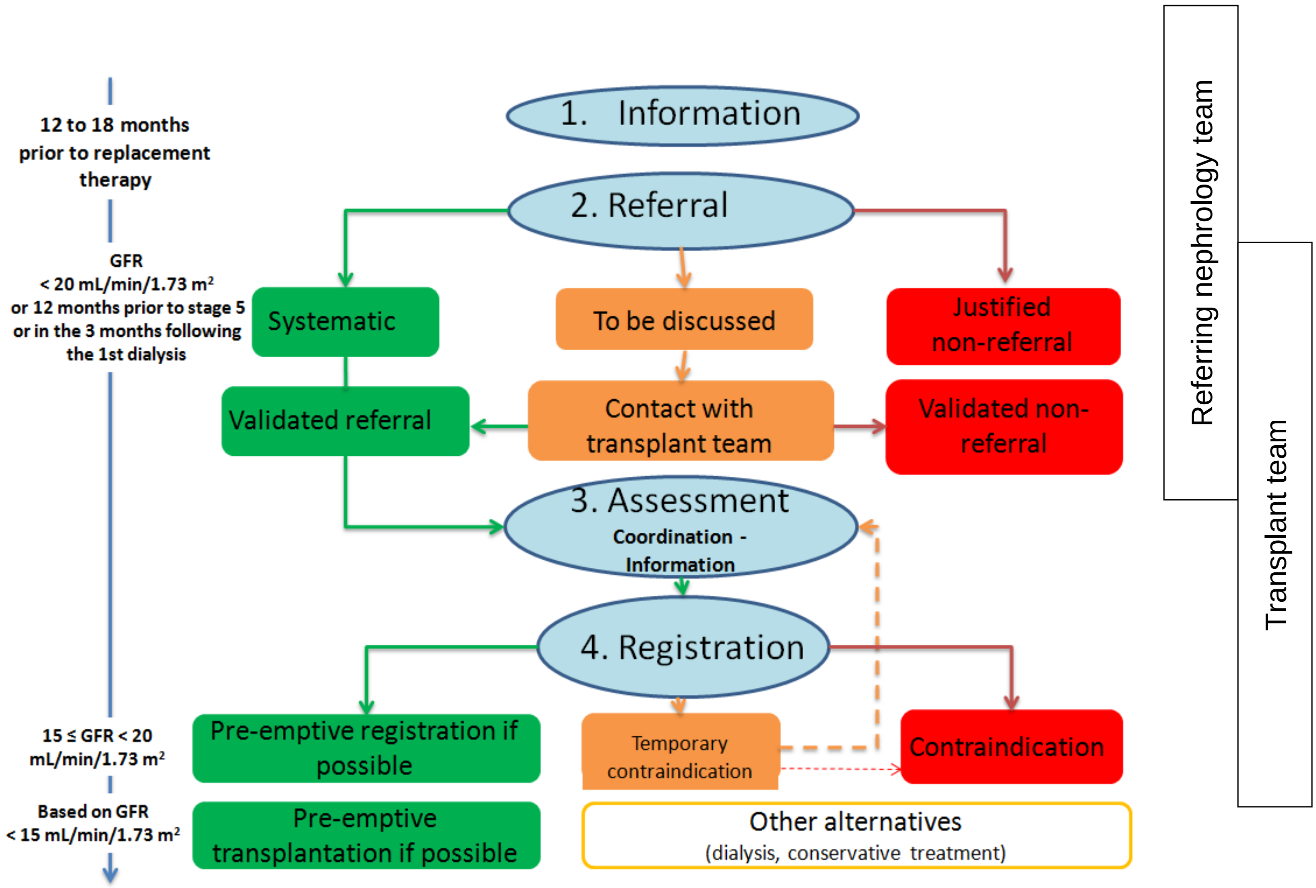

Figure 1. Process for access to the waiting list, coordinated between the referring nephrology team and the transplant team

IDENTIFY AND INFORM

For a preemptive registration: 12 to 18 months prior to replacement therapy

EC	Use the information systems available to the medical teams to identify all patients: ▪ with a progressive stage 4 CKD, for whom the professionals anticipate a need for replacement therapy or a GFR < 20 mL/min/1.73 m² in the next 12 to 18 months; ▪ with stage 5 CKD, GFR < 15 mL/min/1.73 m², not yet on dialysis.
B	Inform all of these patients about all replacement therapies, including transplants with living or deceased donors, at least 1 year before the replacement therapy, if possible.

For early registration post-dialysis: within the 3 months following the 1st dialysis

EC	Identify all unregistered dialysis patients using existing information systems.
B	Within the 3 months following the first dialysis, ensure that the patient is informed of the possibilities of kidney transplantation, with a living or deceased donor, and that he/she understands if this is a possible alternative to dialysis for him/her.
EC	Immediately inform any uninformed patient, who has undergone dialysis for more than 3 months, about the existence of kidney transplantation and the course of the access pathway thereto, unless there is a documented contraindication.

Reduce disparities and registration times

B	Be aware of independent social determinants of medical criteria that impact access to the waiting list (age, gender, education level and precarity) and provide equitable access to the entire population.
C	Ensure that any therapeutic education programme or information sessions presenting replacement therapies include a section on kidney transplantation, with living or deceased donor.
C	• Establish a monitoring system to determine registration times; identify patients referred to a transplantation pathway and note the dates of completion of the main steps to monitor their progress (information, referral, search for living donor, start and end of pre-transplant assessment, registration or rejection), in combination with therapeutic education programmes implemented prior to replacement therapy or during the pre-transplant assessment.
C	• Organise the pre-transplant assessment promptly. With the exception of complex situations, it is preferable to have the three consultations (nephrological, surgical and anaesthetic) on the same day, at the hospital where the transplantation will be performed.
EC	• Validate administrative registration at the latest within 1 month of the medical registration.

Discussion of information with the patient

EC	Inform the patient about the benefits, risks and contraindications of the different treatment options (kidney transplantation with a living or deceased donor, dialysis and conservative treatment) and note his/her lifestyle choices, priorities and preferences: they may differ from those of the healthcare professionals (see the "Information to discuss with the patient" guide).

REFER AND START THE ASSESSMENT

Systematic referral

B	After the patient's agreement, start the pre-transplant assessment and/or refer any patient under 85 years of age, with an irreversible, progressive stage 4 or stage 5 CKD, whether or not on dialysis, to a transplant team if his/her situation does not fall under unjustified referrals or referrals to be discussed.

Unjustified referral

EC	It is justified not to start a pre-transplant assessment and not to refer patients to a transplant team if the life expectancy is limited and/or the comorbidities result in an anaesthetic risk that is too high and/or no benefit is expected from the transplantation in terms of life expectancy and quality of life. This non-referral is recommended in the following situations: ▪ patient refusal, after verification that this refusal is not based on inadequate information or incomplete or incorrect understanding of the information; ▪ cancer or haematological malignancy that requires treatment and/or is progressive, not in remission; ▪ cardiovascular comorbidities that make the general anaesthesia required for the surgical transplant procedure incompatible or left ventricular ejection fraction (LVEF) < 35%; ▪ severe respiratory comorbidities that make the general anaesthesia required for the surgical transplant procedure incompatible; severe respiratory comorbidities include the following: severe chronic respiratory failure with baseline PaO_2 < 60 mmHg and/or long-term oxygen therapy, severe pulmonary fibrosis, obesity hypoventilation syndrome with long-term mechanical ventilation, severe idiopathic pulmonary arterial hypertension; ▪ unstabilised acute psychiatric disorders or unmonitored chronic psychiatric disorders, requiring psychiatric care before any registration on the waiting list (psychiatrist opinion); ▪ alcohol dependence or addiction to illegal drugs without a withdrawal plan; ▪ advanced dementia proven by specialist opinion; ▪ morbid obesity defined by a body mass index (BMI) > 50 kg/m^2 (beyond a BMI of 40 kg/m^2, transplantation remains possible in certain specific situations); ▪ aged over 85 years (beyond 85 years, referral must be exceptional); ▪ patients for whom the choice of conservative treatment was made.
EC	Criteria to re-examine annually by the referring nephrologist in case of situations that may progress favourably, in order to verify if they are still present.
EC	With the exception of these situations, it is recommended that a non-referral to a transplant team be decided after discussions with the patient and opinion or meeting with a doctor from the transplant team.

Referral to be discussed

C	Discuss between the referring nephrologist and the transplant team, the relevance of referring the patient to a kidney transplant pathway before performing a pre-transplant assessment, when the patient has a complex situation: ■ two or more than two of the following comorbidities or risk factors: diabetes, myocardial infarction, peripheral vascular disease, stroke, use of tobacco; these factors significantly decrease the likelihood of being registered; ■ one or more risk factors for post-transplant complications known prior to the pre-transplant assessment: ◗ obesity with a BMI between 35 and 50 kg/m^2, ◗ history of cancer, ◗ systemic amyloidosis, ◗ loss of autonomy or decreased cognitive functions, documented using validated tests, ◗ stabilised or monitored psychiatric disorders or diseases, according to the opinion of a psychiatrist, ◗ heart failure, ◗ moderate respiratory failure, ◗ liver failure, ◗ thromboembolic risk factors, ◗ extensive vascular calcifications; ■ one or more risk factors related to the surgical technique, especially malformation of the genitourinary tract; ■ a risk of recurrence of the initial kidney disease; ■ a history of kidney transplantation or transplantation of any other organ; ■ a chronic infection (HIV, HCV, HBV).
EC	Various kinds of documented exchanges between the referring nephrologist and the transplant team are possible: exchange by post, telephone, discussion on records, multidisciplinary meeting, telemedicine, patient consultation with the transplant team. This contact should allow the patient to avoid any loss of opportunity, i.e. avoid an inappropriate non-referral, but also to validate the relevance of initiating the assessment or prioritising pre-transplant exams for the sake of appropriateness of care.
EC	For patients over 70 years of age, a life expectancy assessment using a validated score may be useful in deciding whether or not to initiate the pre-transplant assessment, in agreement with the transplant team.
EC	If the patient has any concerns about the potential benefit of the transplantation, suggest that he/she meets with a member of the transplant team.

PRE-TRANSPLANT ASSESSMENT

The common assessment for all transplant candidates is partially based on tests performed as part of regular monitoring for chronic kidney disease. It will be completed based on clinical data, the patient's age and history or comorbidities (for specifications on frequent supplemental assessments, see the text and annexes of the guideline – in French).

Coordination of the pre-transplant assessment

EC	Common pre-transplant assessment to be coordinated in all or in part by the referring nephrology team, according to the organisation established locally with the transplant team.

Common assessment for all candidates

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In case of complex situations or situations where registration is uncertain, HLA typing and specific serology testing will be done following the registration decision. Have the following results:

detailed record of personal and family, medical, surgical, obstetric, allergy, transfusion, thromboembolic and haemorrhagic histories; history of vascular access; carrier of multidrug-resistant bacteria, if known; specific record of the initial nephropathy (analysis of the renal biopsy, if available), its progress, and evaluation of the risk of recurrence;
detailed physical exam, and in particular: peripheral pulses, blood pressure, skin phenotype and exam, weight, height, BMI;
laboratory work-up:

ABO blood group, RH factor, irregular antibodies,
platelet count, PT-INR, APTT, fibrinogen,
HLA typing and anti-HLA antibodies (following decision to register in case of complex situations),
serology testing: HIV, HBV, HCV, and following decision for registration: CMV, EBV, toxoplasmosis, VZV, as well as syphilis, HTLV1 and any other serological tests requested by the Biomedicine Agency (ABM) for registration,
calcium, phosphates, parathyroid hormone,
ASAT, ALAT, total bilirubin, ALP, gamma GT,
fasting blood glucose;

vaccine status and update of vaccines according to the current guidelines prior to kidney transplantation (see annex 2 of the guideline – in French);
imaging and other supplemental tests:

chest X-ray,
12-lead ECG, echocardiography,
ultrasound or other renal imaging test;

consultations within the transplant team:

nephrological consultation,
surgical consultation,
anaesthesia consultation,
psychological or psychiatric consultation, if available;

assessment of the patient's social situation.

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Testing for coronary heart disease in kidney transplant candidates

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Asymptomatic patients at low risk for coronary heart disease: baseline clinical data, physical exam, resting ECG and chest X-ray constitute a sufficient assessment.
Candidates 50 years of age and older, or diabetic, or with a personal or family history of cardiovascular disease: testing for coronary heart disease recommended according to a decision tree (annex 4 of the guideline – in French). From the outset, perform a dobutamine stress echocardiography or a stress scintigraphy, if the patient's physical ability clearly does not allow him/her to perform a stress test, making its interpretation impossible.
Candidates under 50 years of age with at least two significant cardiovascular risk factors, in addition to the CKD (time on dialysis, use of tobacco, arterial hypertension and dyslipidaemia): it is reasonable to test for coronary heart disease.

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REGISTRATION ON THE FRENCH KIDNEY TRANSPLANT WAITING LIST

The process for registration on the French kidney transplant waiting list has three steps:

- registration on the sole national kidney transplant waiting list by an authorised medico-surgical transplant team, electronically;
- administrative confirmation by the management of the hospital after having verified the patient's identity and the conditions for financial coverage of the operation;
- confirmation to the patient of his/her registration on the list by the national graft distribution centre of the Biomedicine Agency (ABM), after examination of the administrative file. This confirmation puts the patient in position to wait for a transplant, unless the registration was made from the outset under a temporary contraindication. The Biomedicine Agency (ABM) directly informs the patient of his/her actual registration on the national waiting list.

> It is not possible to make an exhaustive list of situations where the patient may be placed on the kidney transplant waiting list. Only situations of specific registrations or unjustified registrations are listed here.

Specific registrations

EC	**Pre-emptive registration** Consider the GFR degradation slope to adjust the GFR threshold at registration. Recommended GFR threshold for pre-emptive registration: $15 \leq \text{GFR} \leq 20$ mL/min/1.73 m^2, to expect, in the best possible case, a pre-emptive transplant based on a GFR < 15 mL/min/1.73 m^2, especially in case of the possibility of a living donor.
EC	**Registration with living donor** Follow the same criteria for registration on the kidney transplant waiting list, whether the transplantation is planned from a living or deceased donor graft.
EC	**Registration after establishment of specific support** Ensure that specific social and medical support and treatment, if applicable, are established and help facilitate treatment adherence and post-transplant follow-up prior to registering patients in the following situations: ▪ patient with an addiction to alcohol or illegal drugs that may result in lack of treatment adherence, with a withdrawal plan; ▪ patient with a psychiatric disorder; ▪ non-autonomous, socially isolated patient.
EC	**Registration from the outset under a temporary contraindication** The anticipated duration of the temporary contraindication must not exceed 1 year, in order to limit the repetition of pre-transplant assessments. It is possible to register the patient on the kidney transplant waiting list, placing him/her under a temporary contraindication from the outset, in the following conditions: ▪ uncontrolled coronary heart disease or peripheral artery disease pending revascularisation; TIA, stroke (CVA) or acute coronary syndrome, less than 6 months; ▪ cancer or haematological malignancy in remission, for which the duration of the contraindication is to be assessed on a case-by-case basis with the oncologist, haematologist or organs specialist; ▪ psychiatric disorders or severe cognitive disorders requiring prior therapeutic adjustment and/or specific support measures that are being established; ▪ alcohol dependence or addiction to illegal drugs in the course of withdrawal; ▪ infectious diseases requiring a multi-month treatment before transplantation is possible;

	■ polycystic kidney disease awaiting nephrectomy or embolisation of renal artery.

Justified non-registration

Listed below are the specific situations most commonly at the origin of a medical decision not to register the patient on the French kidney transplant waiting list for isolated renal transplantation, in addition to situations for which it was decided not to refer the patient to a transplant pathway. This list is not exhaustive. Some of these situations may give rise to discussion about the opportunity for a simultaneous double transplant of two different organs including a kidney.

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<tr><td>EC</td><td>Do not register patients on the kidney transplant waiting list (kidney alone) after pre-transplant assessment in the following clinical situations:
■ kidney failure that is not progressive and irreversible; GFR ≥ 20 mL/min/1.73 m^2;
■ severe non-revascularisable coronary heart disease;
■ severe heart failure (NYHA IV and/or left ventricular ejection fraction < 35%);
■ severe sequelae of stroke;
■ severe non-revascularisable peripheral vascular disease;
■ chronic obstructive pulmonary disorder (COPD) with BODE index ≥ 5;
■ severe chronic respiratory failure with PaO_2 < 60 mmHg and/or long-term oxygen therapy;
■ cancer or haematological malignancy that requires treatment and/or is progressive;
■ history of treated cancer, in remission, not having reached the recommended safety time in agreement with the oncologist, haematologist or organs specialist. This time may be less than 5 years (register under temporary contraindication if the recommended delay is < 1 year);
■ HCV or HBV in case of contraindication established in agreement with the infectious diseases specialist or hepatologist;
■ HIV if at least one of the following criteria is present:
◗ non-compliance with treatment, especially highly active antiretroviral therapies,
◗ CD4 level ≤ 200 mm^3 in the last 3 months,
◗ HIV RNA level detectable in the last 3 months,
◗ opportunistic infections in the last 6 months,
◗ signs compatible with a progressive multifocal leukoencephalitis, a chronic intestinal cryptosporidiosis or a lymphoma;
■ progressive systemic diseases;
■ vascular access not permitting transplantation and not appropriate for a replacement surgery;
■ psychiatric disorders in the acute phase or severe cognitive disorders not controlled by treatment and/or that may be worsened by the transplantation;
■ complicated non-viral cirrhosis not falling under a combined liver-kidney transplant.</td></tr>
<tr><td>EC</td><td>Discuss and decide in a multidisciplinary meeting within the transplant team any registration refusal based on criteria other than those cited above in isolation, particularly because of the combination of several comorbidities or risk factors, including immunological factors.</td></tr>
<tr><td>EC</td><td>Do not register patients on the waiting list who demand to be transplanted according to terms that are not compatible with the national rules for the allocation of grafts, after ensuring that they have understood them.</td></tr>
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Grades of recommendation

A	Established scientific evidence	**C**	Low level of evidence
B	Scientific presumption	**EC**	Expert consensus

This document provides the main points from the practice guideline " Transplantation rénale : accès à la liste d'attente nationale" – Recommandation pour la pratique clinique – Octobre 2015 [Kidney transplantation: Access to the national waiting list" –Clinical Practice Guideline – October 2015].
The full text of these guidelines and the scientific rationale can be consulted in full at www.has-sante.fr, in French