

Tests, treatments and procedures at risk of inappropriateness in Italy
that physicians and patients should talk about

Five recommendations from the Italian Society of Nephrology (SIN)

1	<p>Do not perform creatinine clearance tests in situations where it is impossible to ensure an accurate urine collection, or when it is not necessary to measure urinary creatinine excretion. In such cases, it is preferable to assess renal function by calculating the eGFR (the volume of the filtrate).</p> <p>Clearance (or the volume of plasma from which a given substance – creatinine in the case in point – is completely removed per unit of time) is measured using a mathematical formula comprising four factors: blood creatinine concentration; urinary creatinine concentration; urinary volume; and time (24 hours, or 1440 minutes). Creatinine clearance is expressed in milliliters per minute, and corrected for body surface area.</p> <p>A variation in any one of these parameters gives rise to unreliable values. Among the four factors, the one most likely to vary, and consequently the source of countless practical errors, is urinary volume, based on urine collected over 24 hours. The first urine in the morning should be discarded, then all urine is collected up until the patient wakes the next morning. For people working away from home or students, 24-hour urine collection can pose a problem, and partial collections lead to errors in the calculation of urinary creatinine clearance. Any clean container can be used, providing it is large enough to hold all the urine produced in 24 hours. Bringing a part of the whole urine collection is not enough. Since inaccuracies are extremely common, it is preferable to use formulas based on validated statistical models that take into account the patient's different variables (age, gender, race, etc.).</p>
2	<p>Do not perform computerized tomography (CT) for the diagnosis of renal stones. It is initially preferable to use ultrasound.</p> <p>The presence of renal stones can be identified by a simple ultrasound test. Ultrasonography identifies calcium stones particularly well, but also reveals stones of other compositions, with the exception of certain particular types (e.g. cysteine stones). Sometimes ultrasound can even show the consequences of the presence of stones (ureteral dilation or even obstruction, with an increase in its diameter, upstream from where the stone is located). Ultrasound is inexpensive and avoids exposing patients to a certain amount of radiation. CT is useful when a stone's shape or position warrants its removal (surgically or endoscopically, or with the aid of shock waves).</p>
3	<p>Only opt for chronic dialysis after a decision-making process has been conducted jointly with patients, their families, and their family physicians.</p> <p>Hemodialysis is a challenging treatment, not only for patients, but also for their families. Adult patients' continuous absences from work, and pediatric patients' absences from school are already an important factor limiting their normal life. For elderly patients, members of the family often have to find time, among their other engagements, to cope with transporting patients to and from the dialysis unit, and so on. Peritoneal dialysis is a more appropriate choice for children, and for young adults of working age who are married or living with a stable partner. It has the advantage of being performed at the patient's home (so does home-based hemodialysis, but the latter is still not widely available in our country). Of course, having to spend every night on peritoneal dialysis has a severely limiting effect on a patient's social life, and is therefore sometimes not appreciated by adolescents or adults. In any case, given its considerable impact on the quality of life of patients and their families, the choice between the different types of dialysis should not be dictated by medical issues alone. It should also take into account the lifestyle, age and habits of the patient and his/her family.</p>
4	<p>Do not administer erythropoiesis stimulating agents (ESA) to patients with chronic kidney disease (CKD) and spontaneous hemoglobin levels between 10 and 11 g/dL with no symptoms of anemia. The same applies to patients who have not been tested for blood ferritin levels and transferrin saturation, at least.</p> <p>The target of 10-11 g/dL of hemoglobin has been identified in patients with chronic kidney disease (CKD) as the hemoglobin level associated with a lower risk of complications, particularly for the cardiovascular system. It is also pointless to administer ESA without correcting any iron imbalance, since they would be unable to stimulate the patient's erythropoiesis effectively.</p>
5	<p>Avoid the use of non-steroidal anti-inflammatory drugs (NSAIDs) in patients suffering from hypertension, cardiac insufficiency or chronic kidney disease - whatever their cause (including diabetes).</p> <p>Numerous drugs can cause renal insufficiency, or facilitate its progression, so they should be used with particular caution. The so-called NSAIDs (non-steroidal anti-inflammatory drugs) are the most often used painkillers (e.g. nimesulide, ketoprofen, diclofenac, ibuprofen, naproxen, piroxicam, ketorolac, meloxicam - sold under various trade names). These drugs can cause damage by reducing the inflow of blood to the kidney, or by interfering with the arachidonic acid, prostaglandin and prostacyclin systems. The end-result is a reduction in the blood flow to the glomeruli, with a consequent decline in glomerular filtration, and an increase in creatinine and blood nitrogen levels, and arterial blood pressure. This condition may even be irreversible. It can be important in patients with chronic kidney disease (CKD), who have a more limited functioning nephron mass, and vessel constriction due to hyperfiltration; and it is particularly important for diabetic patients with CKD, who already have a tendency for vessel constriction, which is exacerbated by the use of NSAIDs.</p>

Please note that the above considerations are for the reader's information only, and are not intended as a substitute for consultation with a clinician. Patients with any specific questions about the items on this list or their individual situation should consult their clinician.

How this list was created

To identify the five practices at greatest risk of inappropriateness, a special commission was set up by the board of the Italian Society of Nephrology, directed by Dr. Alessandro Amore. With the active cooperation of the other board members (and Dr. Sandro Feriozzi in particular), the commission drew up a list of 22 practices at risk of inappropriateness. These practices were then posted on the Society's website and submitted to a vote, and the five potentially inappropriate practices most often voted in absolute terms (the outcome of a democratic vote by all 289 active members of the Italian Society of Nephrology) were identified as the five focus points for publication on the Slow Medicine website.

Sources

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Slow Medicine, an Italian movement of health professionals, patients and citizens promoting a Measured, Respectful and Equitable Medicine, launched the campaign **"Doing more does not mean doing better-Choosing Wisely Italy"** in Italy at the end of 2012, similar to Choosing Wisely in the USA. The campaign aims to help physicians, other health professionals, patients and citizens engage in conversations about tests, treatments and procedures at risk of inappropriateness in Italy, for informed and shared choices. The campaign is part of the Choosing Wisely International movement. Partners of the campaign are the National Federation of Medical Doctors' and Dentists' Orders (FNOMCeO), that of Registered Nurses' Orders (FNOPI), the Academy of Nursing Sciences (ASI), National Union of Radiologists (SNR), Tuscany regional health agency, PartecipaSalute, Altroconsumo, the Federation for Social Services and Healthcare of Aut. Prov. of Bolzano, Zadig. www.choosingwiselyitaly.org. www.slowmedicine.it

The **SIN (Italian Society of Nephrology)** was founded in 1957 as a not-for-profit society with no political leanings, and it now has nearly 2000 members. The numerous goals of the SIN are educational (through conferences and remote learning schemes), constitutional, legislative (relations with public health authorities, ministries and local health authorities), aiming for an ever more appropriate, measured and respectful approach to nephrology. The Society publishes two journals, one national and one international, with an impact factor of around 2. It draws up guidelines for many medical conditions in the sphere of nephrology and dialysis. It has recently signed agreements with various other scientific societies, such as the SIF (Italian Society of Pharmacology), with a view to preparing a document on the practical management of patients with kidney transplants at peripheral centers. It recently joined two important campaigns, *Slow Medicine* and *"Aderisco perché"* (Why I Take Part), for educating patients with kidney transplants and ensuring close cooperation on the use of immunosuppressants by individuals with transplants. <https://sinitaly.org/>