



SANDOZ CORDIALLY INVITE YOU TO A SYMPOSIUM  
SESSION OF ESOT 2015 CONGRESS ON

# The Value Of Generic Medicine In Transplantation

What determines medical decision making  
– example of cost savings by generic CNI

**Dr Lutz Fritsche (Berlin;DE)**

Tacrolimus in kidney transplantation:  
generic vs reference formulation

**Dr Eduardo Melilli (Barcelona;ES)**

Implementation of generic medicine in practice

**Andrea Devaney (Oxford;GB)**

## WHEN & WHERE

**Copper Hall**  
**Tuesday 15th Sept**  
**13.00 - 14.00**

Lunch bags will be available on a first come first served basis

**Abbreviated Prescribing Information.** Adoport (tacrolimus). The medicinal product should only be prescribed by physicians experienced in immunosuppressive therapy and the monitoring and management of transplant patients. Inadvertent, unintentional or unsupervised switching between immediate or prolonged-release formulations of tacrolimus is unsafe. This can lead to graft rejection or increased incidence of side effects. Patients should be maintained on a single formulation of tacrolimus with the corresponding daily dosing regimen; alterations in formulation or regimen should only take place under the close supervision of a transplant specialist with therapeutic monitoring. Please consult the Summary of Product Characteristics (SmPC) for further information before prescribing, especially in relation to dose, precautions, interactions and side effects.

**Presentation:** Each capsule contains 0.5 mg, 1 mg or 5 mg tacrolimus (as tacrolimus monohydrate). Uses: Prophylaxis of transplant rejection in liver, kidney or heart allograft recipients; Treatment of allograft rejection resistant to treatment with other immunosuppressive medicinal products.

**Dosage:** The oral daily dose should be administered in two divided doses with fluid (preferably water) on an empty stomach or at least 1 hour before or 2 to 3 hours after a meal. Advise patient not to swallow the desiccant. Capsule contents may be suspended in water and administered via an NG tube. Dosing should primarily be based on clinical assessments of rejection and tolerability in each patient individually aided by blood level monitoring. Monitor trough levels 12 hours post-dose. The following doses are a guide only. **Adult:** Liver, kidney and heart transplantation prophylaxis Initial dose should commence at 0.10-0.20 mg/kg/day approximately 12 hours following liver transplantation, 0.20-0.30 mg/kg/day within 24 hours for kidney transplantation, and 0.075mg/kg/day for heart transplantation in two divided doses within 5 days of transplant as soon as patient is clinically stable. Alternatively, 2-4 mg/day within 12 hours of heart transplant. **Elderly:** No dose adjustment needed. **Children:** Initial dose should commence at 0.30 mg/kg/day for liver and kidney transplantation, in two divided doses. Heart transplantation with antibody induction: 0.1-0.3mg/kg/day, or without antibody induction, 0.3mg/kg/day orally, starting 8-12 days after stopping IV therapy, in two divided doses. **Rejection therapy:** Alterations in tacrolimus doses may be required and/or introduction of other immunosuppressive agents. Post-transplant period: Tacrolimus doses are usually reduced in the post-transplant period. Post-transplant improvement in the patient's condition may alter the pharmacokinetics of tacrolimus and may necessitate further dose adjustments. Refer to the SmPC for dosing for other organ transplants, management of rejection, conversion from ciclosporin and IV dosing. **Contraindications:** Hypersensitivity to the active substances, the excipients or macrolides. **Special warnings and precautions:** Allergic and anaphylactoid reactions have been observed. During initial posttransplant period: blood pressure, ECG, neurological and visual status, fasting blood glucose levels, electrolytes (particularly potassium), liver and renal function tests, haematology parameters, coagulation values, and plasma protein determinations should be carried out on a routine basis. St. John's Wort and other herbal preparations should be avoided. Avoid concomitant use with ciclosporin. Extra monitoring is recommended during episodes of diarrhoea. Ventricular hypertrophy or

hypertrophy of the septum have been observed. May prolong the QT interval, caution in patients with diagnosed or suspected Congenital Long QT Syndrome. EBV-associated lymphoproliferative disorders have been reported. Patients should not receive anti-lymphocyte treatment concomitantly. Posterior reversible encephalopathy syndrome (PRES) has been reported. Increased risk of opportunistic infections including BK virus associated nephropathy and JC virus associated progressive multifocal leukoencephalopathy (PML). Cases of pure red cell aplasia have been reported in the presence of known risk factors. Contains lactose. Not compatible with PVC tubes/syringes. Limit sunlight exposure due to potential malignant skin changes and sensitivity. Risk of secondary cancer is unknown. **Interactions:** Please refer to the SmPC for further information. Tacrolimus is metabolised by CYP3A4 in the liver and the intestinal wall. Concomitant use of medicinal products or herbal remedies known to inhibit or induce CYP3A4 may affect the metabolism of tacrolimus warranting increased monitoring. Caution use with nephrotoxic or neurotoxic drugs. Avoid high potassium intake or potassium-sparing diuretics. Avoid use of live attenuated vaccines. Tacrolimus is extensively bound to plasma proteins; consider possible interactions with other medicinal products known to have high affinity for plasma proteins. **Pregnancy:** Tacrolimus crosses the placenta. Due to the need for treatment, tacrolimus can be considered when there is no safer alternative and when the perceived benefit justifies the potential risk. Risk for premature delivery. Monitor the newborn for potential adverse effects of Adoport. **Lactation:** Not recommended. **Side effects:** Medication error associated cases of transplant rejection have been reported. Increased risk for infections, aggravation of pre-existing infections and developing malignancies. Benign as well as malignant neoplasms including EBV-associated lymphoproliferative disorders and skin malignancies have been reported. **Very common:** hyperglycaemic conditions, diabetes mellitus, hyperkalaemia, insomnia, tremor, headache, hypertension, diarrhoea, nausea, renal impairment. **Common:** anaemia, leukopenia, thrombocytopenia, leucocytosis, red blood cell analyses abnormal, hypomagnesaemia, hypophosphataemia, hypokalaemia, hypocalcaemia, hyponatraemia, fluid overload, hyperkalaemia, appetite decreased, anorexia, metabolic acidosis, hyperlipidaemia, hypercholesterolaemia, hypertriglyceridaemia, other electrolyte abnormalities, anxiety symptoms, confusion and disorientation, depression, depressed mood, mood disorders and disturbances, nightmare, hallucination, mental disorder, renal impairment, renal failure, renal failure acute, oliguria, renal tubular necrosis, nephropathy toxic, urinary abnormalities, bladder and urethral symptoms, seizures, disturbances in consciousness, paraesthesiae, dysaesthesiae, peripheral neuropathies, dizziness, writing impaired, nervous system disorders, vision blurred, photophobia, eye disorders, tinnitus, ischaemic coronary artery disorders, tachycardia, haemorrhage, thromboembolic/ischaemic events, peripheral vascular disorders, vascular hypertensive disorders, dyspnoea, parenchymal lung disorders, pleural effusion, pharyngitis, cough, nasal congestion/inflammation, gastrointestinal inflammatory conditions/ ulceration/perforation/haemorrhages, stomatitis and ulceration, ascites, vomiting, GI and abdominal pains, dyspeptic signs and symptoms, constipation, flatulence, bloating, distension, loose stools, GI signs and symptoms,

hepatic enzyme/function abnormalities, cholestasis, jaundice, hepatocellular damage, hepatitis, cholangitis, pruritus, rash, alopecia, acne, sweating increased, arthralgia, muscle cramps, pain in limb, back pain, asthenic conditions, febrile disorders, oedema, pain/discomfort, blood alkaline phosphatase increased, weight increased, body temperature perception disturbed, primary graft dysfunction. **Uncommon:** coagulopathies/bleeding disorders, pancytopenia, neutropenia, dehydration, hypoproteinaemia, hyperphosphataemia, hypoglycaemia, psychotic disorder, cataract, hypoaacus, ventricular arrhythmias, cardiac arrest, heart failure, cardiomyopathies, ventricular hypertrophy, supraventricular arrhythmias, palpitations, ECG/heart rate/pulse investigations abnormal, infarction, venous thrombosis deep limb, shock, respiratory failures, respiratory tract disorders, asthma, ileus paralytic, peritonitis, acute and chronic pancreatitis, blood amylase increased, gastrooesophageal reflux disease, impaired gastric emptying, dermatitis, photosensitivity, joint disorders, anuria, haemolytic uraemic syndrome, dysmenorrhoea/uterine bleeding, multi-organ failure, influenza like illness, temperature intolerance, chest pressure sensation, feeling jittery/abnormal, blood lactate dehydrogenase increased, weight decreased, coma, central nervous system haemorrhages, cerebrovascular accidents, paralysis, paresis, encephalopathy, speech/language abnormalities, amnesia. **Rare:** thrombotic thrombocytopenic purpura, hypo-prothrombinaemia, hirsutism, hypertonia, blindness, deafness neurosensory, pericardial effusion, acute respiratory distress syndrome, subileus, pancreatic pseudocyst, hepatic artery thrombosis, venoocclusive liver disease, toxic epidermal necrolysis (Lyell's syndrome) thirst, falls, chest tightness, mobility decreased, ulcer. **Very rare:** myasthenia, hearing impairment, echocardiogram abnormal, hepatic failure, bile duct stenosis, Stevens Johnson syndrome, nephropathy, haemorrhagic cystitis, fat tissue increased. **Not known:** pure red cell aplasia, agranulocytosis, haemolytic anaemia. Prescribers should consult the summary of product characteristics in relation to other adverse reactions.

**MA No. pack sizes/cost (excl. VAT):** PL 04416/0939 Adoport 0.5 mg capsules, £42.92 [x50]; PL 04416/0940 Adoport 1 mg capsules, £55.69 [x50]; £111.36 [x100]. PL 04416/0941 Adoport 5 mg capsules, £205.74 [x50].

**Legal category:** POM.

**MA Holder:** Sandoz Ltd, Frimley Business Park, Frimley, Camberley, Surrey, GU16 7SR.

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**Adverse events should be reported. Reporting forms and information can be found at**

**[www.mhra.gov.uk/yellowcard](http://www.mhra.gov.uk/yellowcard). Adverse events should also be reported to Sandoz Ltd, 01276 698020 or [uk.drugsafety@sandoz.com](mailto:uk.drugsafety@sandoz.com).**