

# ABSTRACTS PRESENTED AT THE 2010 ANNUAL MEETING OF THE BELGIAN SOCIETY OF NEPHROLOGY (BVN – SBN)

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## REASONS FOR DOSE REDUCTION OF MYCOPHENOLATE MOFETIL (MMF) AND IMPACT ON GRAFT OUTCOME IN FIRST YEAR AFTER KIDNEY TRANSPLANTATION: A SINGLE-CENTER RETROSPECTIVE ANALYSIS

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MMF has represented a major advance in organ transplantation. Its potential side-effects, however, may ask for dose reduction implicating higher risk of rejection and graft loss. We performed a retrospective analysis of single kidney transplant recipients that received MMF in their initial maintenance immunosuppressive regimen from 1996 till 2007. Data on immunosuppression, MMF dose changes, reasons for dose reduction, acute rejections, graft and patient survival up till the 400th day after transplantation were retrieved from patient files. 749 patients were included. Initial daily MMF dose was 1g (n=415) or 2g (n=302) in most patients (all bid). Other immunosuppressants: methylprednisolone (all), tacrolimus (n=620), cyclosporine (n=104), sirolimus (n=10), belatacept (n=14). In 358 patients (47.8%) MMF dose wasn't changed. In 73 (9.7%) MMF was permanently discontinued (graft loss censored). 326 (43.5%) had at least one dose reduction other than stopping MMF. Of all 741 reduction events (discontinuation included), 55.7% were for hematological reasons. Other: infection (17.7%), trial protocol (10.9%), gastrointestinal side-effects (9.6%), correction of erroneous doses (1.3%), neoplasia (1.8%) and unidentifiable (10.4%) (some reasons coincided). 197 patients (26.3%) lived at least one acute rejection. Proportion of rejections was higher in the subgroup with MMF dose reduction and/or withdrawal than in the remainder of the patients: 34.8 vs. 19.0% ( $\chi^2$  P<0.05). 46 patients lost their graft or died before day 400. Their proportion was highest in the subgroup with MMF dose reduction and/or withdrawal: 8.0 vs. 4.0% ( $\chi^2$  P<0.05). Conclusion: main reasons for MMF dose reduction after renal transplantation were hematological changes and infection, while gastrointestinal side-effects were less important. MMF dose reduction was associated with higher incidence of acute rejection and graft loss during the first post-transplant year. Analysis of the interplay with other determinants of outcome needs further investigation.

## PTH REFERENCE TARGET FOR THE FOLLOW-UP OF HEMODIALYZED PATIENTS AND NEW KDIGO GUIDELINES: THE END OF A NIGHTMARE?

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**Purpose:** Since 2003, Nephrologists used to rely on K/DOQI guidelines who recommend maintaining PTH levels of the patients between 150 and 300 pg/mL. However, this target range was derived from studies that compared bone biopsy data to serum PTH concentrations measured with the former Allegro Intact PTH assay. Since then, it has been reported that any kind of bone turnover could be found for PTH levels between 100-500 pg/mL. Other studies reported that, in dialysis patients, PTH levels are associated with mortality only for the highest concentrations (above 400-600 pg/mL). For these reasons, in August 2009, K/DOQI PTH range has been expanded in the KDIGO recommendation "In patients with CKD stage 5D, we suggest maintaining iPTH levels in the range of approximately two to nine times the upper normal limit for the assay". We have however some concerns about PTH reference (or normal) values.

**Methods:** Reference values for serum PTH levels are obtained by measuring the PTH concentrations in a reference population of apparently "healthy" subjects. Exclusion criteria for this population are highly important and correspond to any cause of altered PTH secretion, including vitamin D insufficiency. We have studied the impact of excluding subjects with low serum 25OHD levels (<20 ng/mL) from a reference population on the laboratory reference range for two PTH kits (Roche Elecsys and DiaSorin Liaison) and thus on the target proposed by the KDIGO.

**Results:** The reference interval was found to be 12-54 pg/mL for Liaison and 14-52 pg/mL for Roche PTH assays. These upper values were 25% lower than the ones proposed by the manufacturers. As a consequence the KDIGO target range for the Elecsys (Liaison) would have been 130-585 (146-657) pg/mL using the manufacturer's proposed upper normal limit, whereas it would have been 104-468 (108-522) pg/mL using our calculated upper limits.

**Conclusions:** for a given PTH assay, the normal values (and consequently the KDIGO target range) may significantly vary, depending on the reference population that has been recruited, and especially whether the vitamin D status has been taken into account for establishment of the reference population.