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Title: Patient education via tablet-pc vs. conventional to improve compliance with immunosuppressive drug regimen after lung transplantation - a randomized controlled trial

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Body: Non-compliance of immunosuppression after lung-transplantation provokes rejection, infection and renal insufficiency. This study was carried out to determine whether tablet-pc education is non-inferior to conventional, face-to-face, education by a specialist for improvement of immunosuppression levels after lung-transplantation. A single-centre (Medical School of Hannover), randomised controlled trial with 6 months follow-up, including patients with less than 50% of calcineurin inhibitor trough levels in target range in last 6 months was initiated. 64 patients were randomised, stratified only by underlying disease of cystic fibrosis. 6 months after inclusion, mean improvement of a single education was 26% of calcineurin inhibitor trough levels in target range. Primary end-point of non-inferiority was reached, a two-sided t-test revealed no difference between types of education ($p = 0.17$, see figure 1). Trough level variability decreased (tablet-pc: 22.9% and 17.9% conservative, $p = 0.13$), interval adherence remained unchanged. Knowledge about immunosuppression improved after 6 months by 44%. Instruments to measure compliance (ITBS, Morisky, ECS) demonstrated good compliance without showing differences between the groups. Conclusion: Tablet-pc education was non-inferior to conventional education with impressive improvement after one education.