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### Updates from the FORTA-group - evaluation of a FORTA-based intervention in hospitalized elderly patients - The VALFORTA study

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**Background & Aim:** Fit for the aged (FORTA), a 4 categories covering classification system (A to D) applicable for all drugs and drug groups in the elderly, was originally developed in Germany and published in english 2009. The categories were evaluated by a Delphi process among experts in german-speaking countries in middle europe. To evaluate these categories in order to reduce polypharmacy-related problems in clinical practice a bicentral study was done implementing a FORTA-based intervention on geriatric hospital wards.

**Method:** Patients (>65 years, >3 drugs, or >60 years, >6 drugs) with 3 relevant diseases and hospitalization for >5 days were randomized. in the intervention, but not the control group, a FORTA team instructed ward physicians on FORTA. Quality of pharmacotherapy was assessed applying the FORTA-score: sum of medication errors classified as over-, under- and mistreatment at discharge. Consecutive patients were randomized to the intervention and control ward, outcome assessment was blinded.

**Results:** 409 patients (age 81.5y, 64% female,.mean hospitalization 17.4 days) were recruited. Overall, in the intervention group quality of pharmacotherapy improved significantly ( $p < 0.0001$ ) intervention vs control groups ( $2.7 \pm 2.25$  vs  $1 \pm 1.8$ , mean+SD, intergroup comparison of admission/discharge differences). Separate analysis of over- and undertreatment scores and use of A and D drugs also showed significant improvement (increase in A-drugs, decrease in D-drugs). FORTA-based intervention also reduced the number of adverse drug reactions (ADR) ( $p < 0.05$ , number-needed-to-treat 5).

**Conclusions:** Applying FORTA in the hospital setting leads to improvement of medication quality and may improve secondary clinical endpoints (e.g. ADR). The FORTA-group prepares further studies to evaluate possible benefits of FORTA based interventions in GP-offices caring for ambulatory elderly and in nursing homes.