

## The Application of Computerized Drug Utilization Review System for Improving the Efficiency of Drug Claim Adjudication of National Insurance Review Agency

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A computerized drug utilization review (DUR) system was developed and used for evaluating the appropriateness of drug uses by analyzing drug claim data of National Insurance Review Agency electronically transmitted from community pharmacies in Seoul and Gyeonggi province during September 1 to September 15, 2002. EDI claim data was processed for detecting the cases of inappropriateness in terms of dosage (minimum and maximum daily doses of adults, geriatrics and pediatrics), potential drug interactions and duration of therapy using DUR checking modules of First DataBank NDDF Plus and KFDA Adult Dose Module (KADM) developed by Sookmyung Women's University Drug Information Research Institute. Significant numbers of drug uses were deviated from the predefined DUR criteria. The most frequent deviations were inappropriate dosages, drug interactions, age contra-indications and inappropriate duration of therapy in order showing potential problems in the safety of drug uses. To prevent the potential dangers in drug uses and improve the efficiency of drug claim adjudications by Health Insurance Review Agency, a model retrospective DUR system with web-based DUR ASP system for feedback was proposed and other DUR systems for hospitals and community pharmacies were also proposed. Other necessary action plans on national level including DUR board, good pharmacy practice standard, quality assurance program for healthcare organizations, DUR practice guideline and national drug formulary system were proposed.