work-related activities consisting of nurse, pharmacist, and/or patient medication dispensing, preparation, administration and/or storage. Projects consisted of time and cost differences related to 1) three proton pump inhibitor dosage forms and seven administration methods, and 2) seven recombinant human growth hormone administration methods. Performance-based time data were then used to determine personnel/patient opportunity time and supply costs associated with different forms of medications and delivery devices. Simulations were developed and used to hold independent variables constant so only observed differences between medications and/or administration methods were assessed. Statistical and microeconomic cost analysis were conducted specific to each type of medication and/or device. RESULTS: Processes and results show two detailed examples as case studies of how simulation-based research may be used to assess health care processes at the micro level. The advantages of isolating processes and counting from the day-to-day reality of patient care were demon- strated. Simulations may also represent an efficient assessment alternative of health care processes at the micro level with potential for projection to the macro level as compared to live, direct observation, cost-intensive, patient-centered care practice evaluations. CONCLUSIONS: Simulation-based time-and-motion and activity-based cost analyses allowed detailed micro-level time, workload, and supply evaluations that may be projected to the macro level. Professional schools’ simulation laboratories offer appropriate settings for such studies.

ESTIMATING TIME-PROFILED ECONOMIC BURDEN OF ILLNESS

CONCEPTUAL PAPERS & RESEARCH ON METHODS – Databases & Spreadsheet Tools

The percentage of patients ascribed comorbidities will vary significantly depending on the number of observation months. Obviously, the incidence rate for new events/diagnoses contributes to the increase over time. However, researchers must be careful since some comorbidities may not be associated with frequent enough physician office visits to accurately detect existing comorbidities when the number of observation months is short.