Statistical and knowledge-based approaches to clinical decision-support systems, with an application in gastroenterology
Clinical decision support systems (CDSS) have been used to assist clinicians in making wise antimicrobial treatment decisions and to assist the antimicrobial stewardship program with identification of patients for potential intervention. These systems may use CDSS have been shown to select appropriate empiric antimicrobial regimens significantly more frequently than physicians. In a cluster-randomized trial of one such CDSS, the rate of appropriate empiric antimicrobial therapy was higher on wards assigned to the CDSS intervention but the difference failed to reach statistical significance after adjustment for location and clustering by ward. Clinical Decision Support Systems (CDSS): Computer applications that support and assist clinicians in improved decision-making by providing evidence-based knowledge with respect to patient data. This type of computer-based system consists of three components: a language system, a knowledge system and a problem processing system. The time for blood to clot and then compares it with an average time. A higher INR indicates a longer time for blood to clot, thereby preventing formation of clots that may cause stroke. INR is a useful test to monitor the impact of anticoagulant medicines such as Warfarin. If INR is too high then uncontrolled bleeding may occur.