A. **Computerised provider order entry (CPOE) system** allows health professionals in acute hospitals to order services, tests and medications electronically. It replaces paper-based ordering systems. The CPOE system has the capacity to incorporate different levels of decision-support to guide the ordering process. For example, active decision-support rules send alerts when a clinician tries to order a test that has already been ordered. Passive decision support, via the provision of electronic access to best-practice guidelines, may increase the likelihood that ordering behaviours will better align to best practice. Previously clinicians relied upon their existing knowledge or sought separate paper-based resources such as drug manuals or paper guidelines. Ordering using paper systems has largely been the province of medical staff. So decision-support in the CPOE system provides the opportunity for a range of health professionals to participate safely in ordering processes.

B. **Ambulatory electronic health record system** will enable the electronic collection and storage of clinical data necessary for the long-term management and care of ambulatory patients with chronic conditions attending hospital outpatient clinics. Multiple providers will input into this system and patients may directly enter data. This replaces a paper-based system of numerous forms and disparate administrative databases and creates a new role for patients. The system also potentially allows new opportunities for when and where certain services are delivered.

C. **Emergency medicine information system** (FirstNet – Cerner Corporation) is designed to streamline work processes within emergency settings. The system allows patients to be tracked and provides an audit trail of service provision. The system is integrated with the CPOE system to enhance the ordering and tracking of tests and results. This system replaces an existing stand-alone computerised system and contains new features. It is expected to have a significant impact upon workflows in emergency departments (EDs). Time critical settings such as EDs have been identified as areas most likely to benefit from new clinical systems via faster turnaround of test results, improved timeliness of clinical procedures, improved communication about patient workload, and reduced medication errors.[70] However, despite the potential for workflow efficiencies, these systems have been met with great resistance and discontent[71] in many EDs. Our research has demonstrated that such systems can significantly disrupt work and communication flows within and external to the department, resulting in considerable staff dissatisfaction.[44] Further, these systems with resultant changes to work practices can lead to efficiencies for some staff and inefficiencies for others. For example, attaching labels created from the test ordering system to specimen bottles can be more time consuming and difficult for ED clinicians whereas these labels with bar codes makes the job of laboratory staff easier. Such changes may produce work efficiencies for some groups but create inefficiencies for others. Changes in role responsibilities and information flows may become a major point of conflict between staff groups,[44] and traditional business re-engineering processes applied prior to system implementation reinforce traditional ways of working. Thus this setting is likely to yield valuable data in investigating work redesign.