Error and Information

- Wilson et al. (1995): 14,000 avoidable in-hospital deaths in Australia per annum
- USA IOM report – 100,000 deaths
- Growing literature on error and prevention for specific classes of clinical decisions such as prescribing:
  - 1995, Leape et al.: almost half medication errors linked to insufficient information
  - 1998 Bates et al.: 55% reduction in serious errors by computerised order entry
Making Clinical Decisions
Quality and safety aspects of information exchange

- Wilson et al. (1995): communication errors a lead cause of in-hospital disability/death in 14,000 patient series
- Donchin et al. (1995): doctor nurse communication in ICU is 2% of work, but figures in 37% of errors
- Bhasale et al. (1998): communication contributes to ~50% adverse events in primary care
Information transactions are often informal

- Covell et al. (1985): 50% info requests are to colleagues, 26% personal notes
- Tang et al (1996): 60% of clinic is talk
- Safran et al. (1998): ~50% information transactions face to face, EMR ~10%, remainder was e/v-mail and paper
Understanding clinical error

- Only have superficial model of causal mechanisms leading to clinical error
- Slips and lapses experimentally due to attention overload e.g. memory effects
- Communication loads may be a prime cause of error via interruptions and attentional loading
Implications for quality and safety interventions

- Clinical culture is one where we seek information from each other in preference to formal systems.
- Technical culture is one where we focus on formal systems in preference to supporting communication.
- Simple communication infrastructure investment may lead to substantial quality and safety gains.