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| **Table xC.I.R.x** Summary of recommendations to address safety concerns posed by the challenges of new and emerging health information technology. Recommendations are tagged as theoretical, T, and practical, P, in line with the foundational aim of the workshop series. | | | | | | |
|  | **Challenges** | **Implications for patient safety** | **Recommendations** | **Safe**  **HIT** | **Safe use of HIT** | **HIT to improve safety** |
| 1 | Difficult to conceptualise threats to patient safety from non-physical innovations. | Inadequate consideration of threats to patient safety. | Systems approach to conceptualising riskT; Safety casesP; Socio-technical perspectiveT | x | x | - |
| 2 | Unclear how to sensibly integrate and interpret new and voluminous data streams. | Missed opportunities to use data; Inappropriate use of data; Biased use of data. | Dynamic and causal modelling continuously surveilled for performanceP; Middleware for interoperabilityP; Standards for linkage and exchange of healthcare dataP; Automated anomaly detectionP | x | x | x |
| 3 | Reactive regulatory- and standards-based approaches to safety. | Avoidable harm is experienced before mitigations are put in place. | Gradual approval of medical devicesP; Systems approach to conceptualising riskT | x | - | - |
| 4 | Difficult to build and maintain trust in health information systems that are obscure and complex. | Misinformation and disinformation threaten patient safety. | Socio-technical perspectiveT; | x | x | x |
| 5 | Emergent patient-safety consequences in health information systems. | Hazards cannot be completely foreseen. | Systems approach to conceptualising riskT; Systems approach to patient safetyT; Safety casesP; Socio-technical perspectiveT; Gradual approval of medical devicesP | x | x | - |
| 6 | Solutionism inappropriately simplifies problems and predicaments. | Unfit interventions and assurances are suggested. | Socio-technical perspectiveT; Systems approach to conceptualising riskT | x | - | - |