Table 1. Interface Medicine models and characteristics

Model	Value proposition	Purpose	Population target	Competence	Temporality	Location
Acute Medical Unit (AMU)	“Right Physician, Right Place, Right Time, First Time for the patient with acute medical illness”	• Patient safety • Optimised patient flow through hospital • Decreased length of hospital stay	Majority of undifferentiated acute medical hospital admissions	Acute Medicine Curricula (UK); specialty or internal medicine	• 24/7 • Extended consultant coverage (e.g. 0800–2000 hours)	• Co-located with ED and diagnostics • Some include semi-critical care setting
Ambulatory Emergency Care (AEC)	“Treating emergency medical conditions without bed & breakfast”	• Admission avoidance • Decreased length of hospital stay	Acute emergencies in patients who can be managed in ambulatory fashion	Specialty or internal medicine	• Mostly 0900–1700 hours • Few extended hours and weekends	• Co-located with ED and diagnostics • Some housed within AMU
Extensivist-Comprehensivist Care	“Empanelment of patients to care-coordination and intensive out-patient care to prevent hospitalisation”	• Admission avoidance • Decreased cost of care • Continuity of care	History or persistent high acute care utilisation	Internal medicine; care coordination; complex case management	• Inpatient care as usual • Intensive outpatients	• Same physician manages inpatient and outpatient episodes
Virtual Ward	“Patients followed up in their homes by medical team using ward level processes”	• Patient safety • Decreased length of hospital stay • Admission avoidance • Continuity of care	Patients who do not fulfil criteria for continuing inpatient hospital stay but require frequent review of condition	Specialty, internal medicine or family practice	• Once a day “ward” round • Can be simple (e.g. telephone) or tech-enabled interaction (e.g. remote monitoring of vitals)	• Patient in own home but reviewed as part of team ward round
Hospital-at-Home	“Hospital level treatment and monitoring in the patients’ own home”	• Patient safety (nosocomial morbidity) • Decreased length of hospital stay • Admission avoidance • No need to build hospitals!	Fulfil criteria for inpatient care (monitoring, skilled nursing, therapy e.g. O_2) to be provided in patients own home	Specialty, internal medicine or family practice	• Mostly 0900–1700 hours • Few out-of-hours service	• Patient in own home
Acute Frailty Unit	“Early review of frail older persons by skilled older persons team to facilitate early discharge”	• Patient safety for vulnerable elderly • Decreased length of hospital stay • Prevent decline	Older person with frailty or complex social needs	Frailty and comprehensive geriatric assessment; knowledge of and access to community resources	• Mostly 0900–1700 hours	• Co-location with ED

AMU: Acute Medical Unit; AEC: Ambulatory Emergency Care; ED: emergency department

Table 2. Main benefits and challenges of each Interface Medicine models

Model	Benefits	Challenges
Acute Medical Unit	• Early diagnosis and treatment	• Break in continuity of care
Ambulatory Emergency Care	• Manage acute/emergency conditions without the need for hospital admission • Potential reduction in nosocomial harm (e.g. infection)	• Only benefits "mobile" patients (e.g. contactable by phone, able to return to hospital, degree of self-care and activation implicit)
Extensivist-Comprehensivist	• Longitudinal care across acute and chronic setting by generalist physician • Care-coordination	• Resource intensive—costly if patient selection not appropriate
Hospital at Home	• Provision of acute care in patients own home • Potential reduction in nosocomial harm (e.g. infection)	• Resource intensive—costly if patient selection not appropriate • Ideally requires out-of-hours support
Virtual Ward	• Hospital ward level processes and monitoring to patient in their own home	• Resource intensive—costly if patient selection not appropriate
Acute Frailty Unit	• Comprehensive geriatric assessment and management early in acute care journey	• Acute care environment not conducive for frailty assessment and longitudinal management