

About ED Sim

The ED patient flow is determined by:

- number of patients
- acuity of patients (how sick patients are)
- number of doctors (see below for modelling different staffing)
- number of ED treatment spaces (resus / majors / minors)
- culture of hospital (strong = ED decision to admit, weak = specialty decision to admit)
- occupancy of hospital (average % occupancy in past 24 hours)

Modelling staffing

The rate limiting step in ED flow is the decision-making capability - and for simplicity these are labelled as doctors.

Nursing, radiology and clerical staff are not independently modelled as these are rarely the rate limiting factor.

To correct for different staff groups - the following table gives relative productivity for different staff groups - based on data from a representative sample of 20 UK emergency departments.

Staff Group	Tier	Relative productivity	Notes
Consultant	5	0.39	all patients, includes supervision
ST	4	0.57	all patients, includes supervision
CESR	4	0.74	all patients, less supervision
ACP	3	0.41	all patients
ENP	2	1	[only category 4/5 minors]
F2	2	0.75	all patients