Community Pharmacy Dispensing Process Evaluation

Dispensing Process flow chart

Objective

To develop a Coloured Petri Net model capable of evaluating the performance of variable pharmacy environments. The model aims to aids decisions about staffing levels and/or safety procedures through performance evaluations.
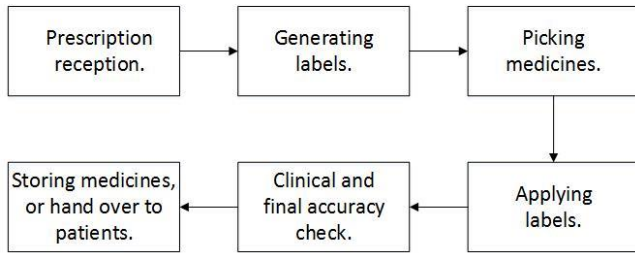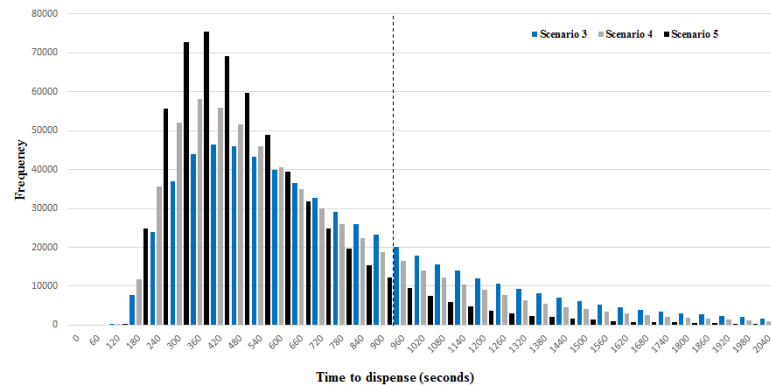

Background

Community pharmacies dispense over 1 billion prescriptions each year in the UK. This makes up a vital primary healthcare service. Studies into errors in community pharmacies have returned error rates of between 0.08% and 3.3%.

Scenario	Efficiency					Reliability		
	Deliveries completed	Total completed	Advanced services completed	Delayed	WI Dispense time mean	R	Near misses	Dispensing errors
					sec			
1	111.1	211	1.8	25.0	711	0.992	29.7	1.6
2	149.4	250	1.8	19.3	636	0.992	32.8	1.9
3	149.5	250	1.8	8.3	494	0.992	32.9	1.9