

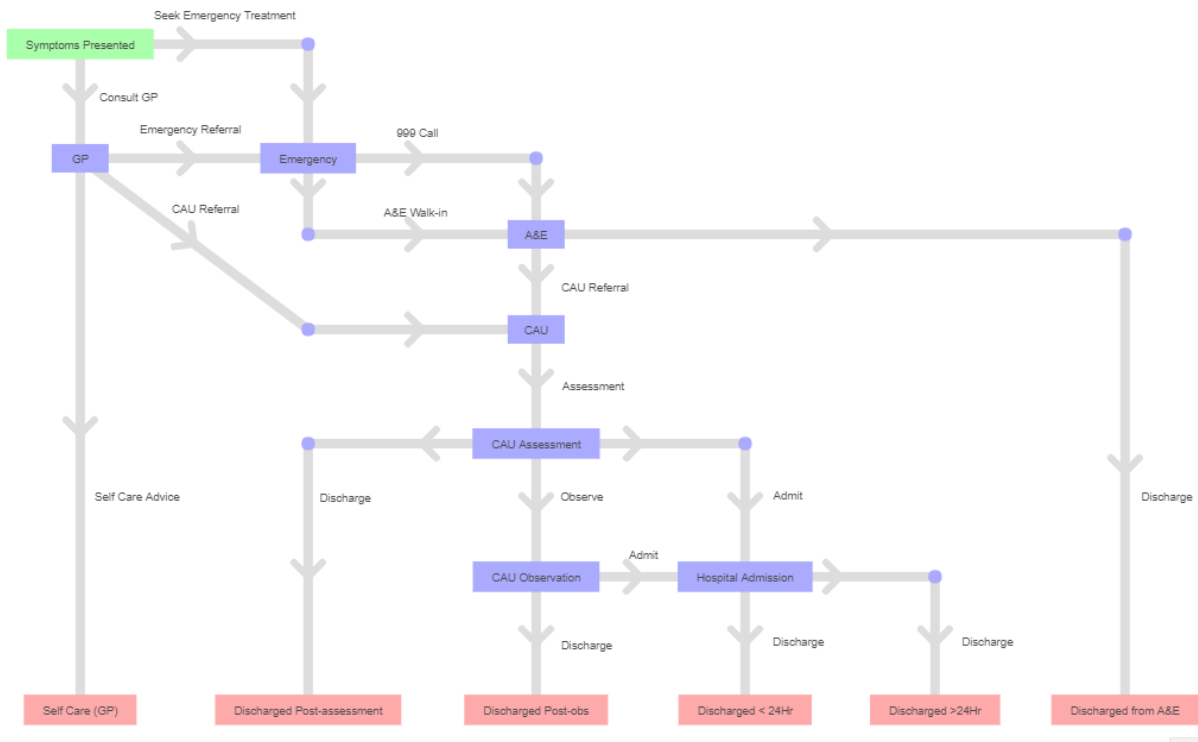
NETIMIS

REFERENCE DOCUMENT

Client: Bradford Royal Infirmary

Pathway: Paediatric Ambulatory Care (Current Pathway)

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Online at: <https://www.netimis.co.uk/shared/59805659d70a388c6eb3b182>

Brief

This model has been created as part of a project with Bradford Royal Infirmary (BRI) and Bradford Institute for Health Research in collaboration with X-Lab. The model aims to provide a clear visualisation of the current state within the paediatric ambulatory care pathway. The results of simulating this pathway will be used to outline the benefits of replacing the Children's Assessment Unit (CAU) with a Children's Clinical Decision Area (CCDA). It is proposed that by making this change, there will be a reduction in hospital admission rates and by simulating this process, this can be explored.

This document provides detail of the settings specified in the NETIMIS model such as capacity, time, cost and probability.

Client

As part of Bradford Teaching Hospital NHS Foundation Trust, BRI aims to provide effective inpatient services for Bradford and other communities across Yorkshire. The children's services provided by BRI include inpatient wards, an outpatient department, community services and a CAU. The CAU is an ambulatory care facility which allows children to be assessed and observed by paediatric specialists, following referral from A&E/GP.

Model

The focus of this case study is the asthmatic patient's pathway within BRI's Paediatric Ambulatory Care system. The model shows the care pathway for patients being admitted into A&E and provides a baseline for evaluating options for other self-care pathways.

Overall Model Settings	
Population Size: 500	Estimation of minimal patients in a day
Time Unit: Hours	Rationale: most appropriate time unit
Costs: Various ambulatory care service bands	Based on quote provided to client on presentation.

Patient Field Settings
No parameters were provided as part of patient field settings.

Pathway Settings				
Activity	Time (hrs)	Cost	Probability/Next pathway	C.I.*
Symptoms Presented			Consult GP – 85% Seek Emergency Treatment – 15%	2

GP Pathway				
Activity	Time (hrs)	Cost	Probability/Next pathway	C.I.*
Consult GP		£25	Self-Care Advice – 80% CAU Referral – 15% Emergency Referral – 5%	3
Self-Care Advice provided			Self-Care (GP)	5
CAU Referral			Transfer into CAU	5
CAU (Capacity = 3)		£222	CAU Assessment	4
CAU Assessment			Discharged post-assessment – 70% CAU Observation – 20% Hospital Admission – 10%	3
CAU Observation (Capacity = 4)	6	£430	Discharged Post-observation – 90% Hospital Admission – 10%	4
Hospital Admission		£520 £1300	Discharged <24Hr – 95% Discharged >24Hr – 5%	3

Emergency Pathway				
Activity	Time (hrs)	Cost	Probability/Next pathway	C.I.*
Seek Emergency Treatment			Enter Emergency unit	5

Enter Emergency unit			999 Call – 17% A&E Walk-in – 83%	3
999 Call		£170	A&E	4
A&E Walk-in		£87	A&E	4
A&E			Discharged from A&E – 90% CAU Referral – 10%	4
CAU Referral			Transfer into CAU	5
CAU (Capacity = 3)		£222	CAU Assessment	4
CAU Assessment			Discharged post-assessment – 70% CAU Observation – 20% Hospital Admission – 10%	3
CAU Observation (Capacity = 4)	6	£430	Discharged Post-observation – 90% Hospital Admission – 10%	4
Hospital Admission		£520 £1300	Discharged <24Hr – 95% Discharged >24Hr – 5%	3

* C.I. is a Confidence Indicator for confidence in the evidence base used to construct the model based on a score of 1-5 with 5 being highest (0=No confidence/ not applicable; 1=Guess by Modeller; 2=Estimate from Domain Expert; 3=Empirical evidence for direct observation/ Extrapolation from published literature; 4=Multiple reliable sources; 5=Confirmed through Expert Review Board).