

KGQuant Single Run Report

NHS Corridor Care: Whole-Hospital Flow

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Dashboard: <https://kgquant.com/demonstrations/corridor-care/>

Executive Summary

Network	NHS Corridor Care: Whole-Hospital Flow
Run type	Single
Single run	net_c26970_single_run_c6ac76
Status	Completed
Profit	£-5,996,673.91
Total revenue	£432,540.00
Total cost	£6,429,213.91

Recommendations

Issue	Evidence	Suggested intervention	Scenario to run
Resource "Ward Nurses" is overloaded at 1301% utilization.	Utilization = 1301.4%	Add capacity to "Ward Nurses" or reduce demand on activities using it.	Increase "Ward Nurses" capacity by 50% and re-run.
Resource "ED Clinicians" is overloaded at 625% utilization.	Utilization = 625.4%	Add capacity to "ED Clinicians" or reduce demand on activities using it.	Increase "ED Clinicians" capacity by 50% and re-run.
Resource "Triage Nurses" is overloaded at 190% utilization.	Utilization = 189.7%	Add capacity to "Triage Nurses" or reduce demand on activities using it.	Increase "Triage Nurses" capacity by 50% and re-run.
Resource "Ward Nurses (Night 00-08)" is overloaded at 165% utilization.	Utilization = 164.8%	Add capacity to "Ward Nurses (Night 00-08)" or reduce demand on activities using it.	Increase "Ward Nurses (Night 00-08)" capacity by 50% and re-run.
Queue "Majors Assessment Queue" averages 142 items.	Avg queue size = 141.5	Increase downstream staffing, reduce service time, or change shift coverage.	Increase capacity of activities downstream of "Majors Assessment Queue".
Resource "Ward Nurses (Late 16-00)" is overloaded at 130% utilization.	Utilization = 130.0%	Add capacity to "Ward Nurses (Late 16-00)" or reduce demand on activities using it.	Increase "Ward Nurses (Late 16-00)" capacity by 50% and re-run.

Issue	Evidence	Suggested intervention	Scenario to run
Resource "Handover Nurses" is overloaded at 112% utilization.	Utilization = 111.8%	Add capacity to "Handover Nurses" or reduce demand on activities using it.	Increase "Handover Nurses" capacity by 50% and re-run.
Resource "Ward Nurses (Day 08-16)" is overloaded at 107% utilization.	Utilization = 107.2%	Add capacity to "Ward Nurses (Day 08-16)" or reduce demand on activities using it.	Increase "Ward Nurses (Day 08-16)" capacity by 50% and re-run.

Run Details

Resources

resource	utilization	cost
Handover Nurses	111.77	0.0
ED Clinicians (Night 00-08)	102.66	44722.4
ED Clinicians	625.43	0.0
Ward Nurses	1301.37	0.0
Bed Managers (Day 08-16)	10.78	9907.49
SDEC Clinicians	84.19	38320.74
Ward Nurses (Late 16-00)	130.01	52835.68
Handover Nurses (Day 08-16)	44.29	14686.27
Resus Teams	24.41	59533.46
ED Clinicians (Day 08-16)	91.03	69974.17

Activities

activity	completed	blocked	cost
45-min Inappropriate-Space Clock	8	0.0	8644.0
Initial Assessment & Streaming	718	0.0	73827.76
Staffed Acute Ward Stay	51	0.0	1524791.32
Resus Stabilisation	50	0.0	538140.15
Ambulance Handover	251	0.0	51167.9
Majors Assessment & Treatment	283	0.0	490184.92

activity	completed	blocked	cost
Admission Bed Decision	72	0.0	29931.02
SDEC Assessment & Treatment	129	0.0	331561.67

Queues

storage_queue	avg_q_size	avg_q_time	cost
Ambulance Handover Delay	0.5	00:00:01	28019.96
Bed Decision Queue	0.51	00:02:36	12170.97
Resus Queue	0.52	00:02:03	125366.95
Corridor Care (>45 min)	0.5	00:00:00	9000.0
Majors Assessment Queue	141.51	17:17:35	310897.27
SDEC Queue	3.84	01:36:20	57765.97
Initial Assessment Queue	0.53	00:00:17	16072.5
Appropriate Bed Wait	0.52	00:07:09	68554.51

Exit Points

exit_point	completed	avg_time	revenue
Discharged via SDEC	129	03:41:44	21990.0
Discharged from Acute Ward	51	D2:07:24:14	70350.0
Discharged from ED	210	19:19:38	76200.0