The Galway Experience

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Galway University Hospital

Galway University Hospitals

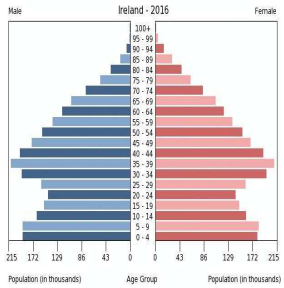
- Main acute hospital in West of Ireland
- Model 4 Hospital with 24/7 care
- Teaching Hospital (NUIG)
- Supra regional centre for cancer and cardiac services
- Core Catchment area of 314,758
  - Wider area serving 1 million (Donegal to North Tipperary)
- Recognised for HST intake in all specialities

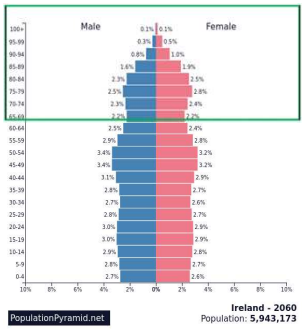
Falls & Syncope Epidemiology

- Annual Falls
  - **1 in 3** people **> 65**
  - **1 in 2** people **> 80**
- **40%** of ambulance calls in over 65s due to falls
- **7%** of over 65s attend ED with a fall
- **40 %** of Nursing Home residents fall twice a year or more
- Falls accounts for **35%** of all patient safety incidents in hospital

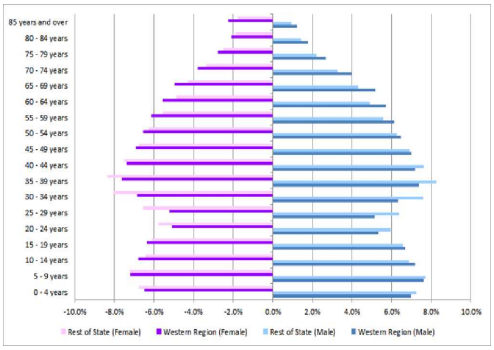
Predominantly a problem of ageing and frailty

Future Planning





Rationale for a Syncope Clinic in Galway



Key points when setting up a service

- **Audit** to assess unmet clinical need
- **Understand requirement** of service you are providing
  - Age cut off ?
  - Integration with AMAU/Emergency Department?
  - Is it a syncope clinic or combined syncope/falls service?
  - MDT provisions?
  - Is it mainly a tilt-only service?
- **Understand Finances** : crucial in preparing business case for service
  - What is the projected demand for the service?
  - Will my business case be successful ?
  - Who should I lobby?
  - Cost and maintenance of expensive diagnostic equipment?

Our Aims

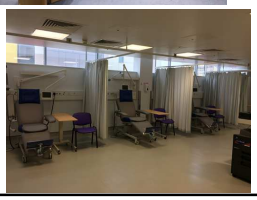
- Design a solid conceptual framework
- Add value to existing resources with cost effectiveness to the patient journey
- Increase rapid diagnostic access and yield
- Improve Patient Outcome
- Scope for continuous education and research

Value of a Syncope Unit

Centre without access to Syncope Unit	Syncope Unit
High Degree in variability	**Reliable**
• Practice Patterns	• Appropriate Resources
• Diagnostic Yields	• Improved diagnostic yield
• Protracted Length of Stay	• Reduced admission and total LOS by > 50% in intermediate risk patients

[1]Kenny RA, Brignole M. In: Benditt D, et al. eds. *The Evaluation and Treatment of Syncope*. Futura;2003:55-60.
[2]Brignole M, et al. *Europace*, 2004;6:467-537.

GUH Syncope Clinic



GUH Syncope Clinic

Initiated June 2016
- Tilt Testing 5 half days per week
- 3 Consult rounds per week
- Falls Registrar – 0.5 FTE
- Nurse Specialist/Research Assistant (advanced paramedic)

Based on SJH Dublin Model of Care

High new to follow up ratio

Clinic: 40min consultation, 8-12 patients

Tilt Table Service

Liaison with Neuro + Cardiology + ENT

GUH Syncope Clinic

- Physician Led
- Dedicated Inpatient & Outpatient service
- Multidisciplinary
- Age Cut Off >50 in Year 1
- All patients seen within 1-3 weeks
- Jan - Dec 2017 : 625 patients
- Atrial Fibrillation screening in post TIA/Stroke patients – >800 since 2016
- 218 New Cases of A.F detected

Multidisciplinary Team

Comprehensive MDT focus

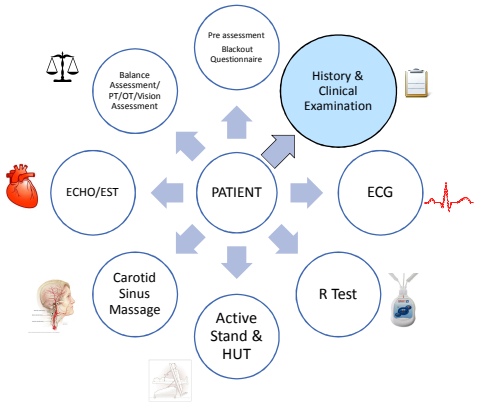
0.5 FTE Physiotherapy
- Special interest in vestibular disorders

0.5 FTE Occupational Therapy

0.5 FTE Clinical Research Assistant

0.2 FTE Administrative Support

GUH Syncope Clinic



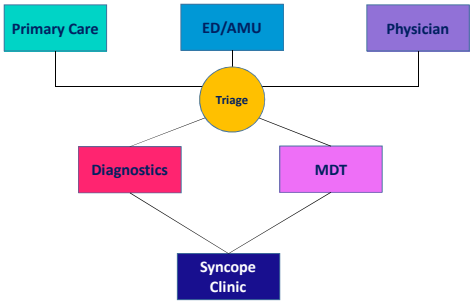
Start Up Costs

Equipment	R Test x 20	€48,000
	Finapres NOVA	€28,500
	High Speed Tilt Table Bed	€11,500
	ABPM x 8	€10,250
	ECG Mortara Machine	€6,300
	Miscellaneous	€4,500
	Vital Signs Monitors	€1,650

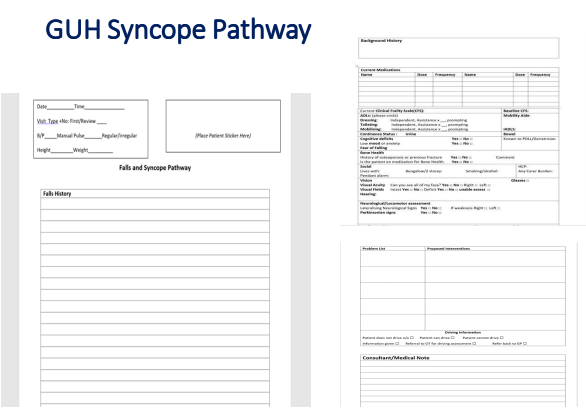
Syncope Clinic Funding

- Synergistic relationship between our syncope clinic and clinical research
- Blended funding model
  - Business case
    - Business Case Manager
    - Lobby Hospital Manager, Director of Nursing
  - Clinical Research

Referral Pathway



GUH Syncope Pathway



Falls and Syncope Pathway

Falls History

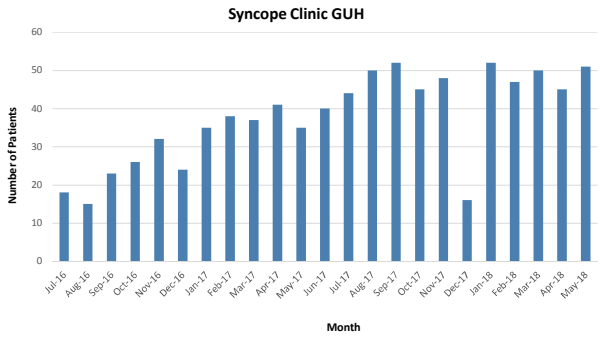
Background History

Current Medications

Problem List

Proposed Interventions

Consultant/Medical Note

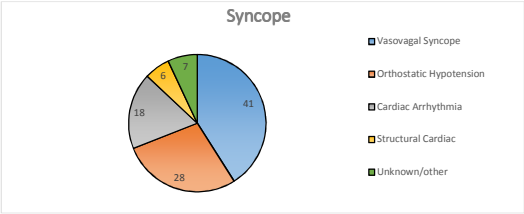


Syncope: ED/AMU presentations 2015

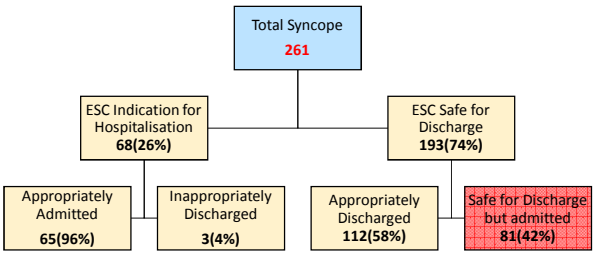
Over 16 week period (1st September to December 22th 2015)

261 acute presentations with syncope

Mean age 67 years



Syncope Presentations to GUH (2015)



Syncope presentations to GUH in 4 months (2015)

146 Admissions

Mean LOS 5.69 days

Age >60 Mean LOS 7.69 days

Age <60 Mean LOS 2.24 days

830 Bed days (3323 per annum)

€3 million per annum

Acute Medical Admissions to GUH (2017)

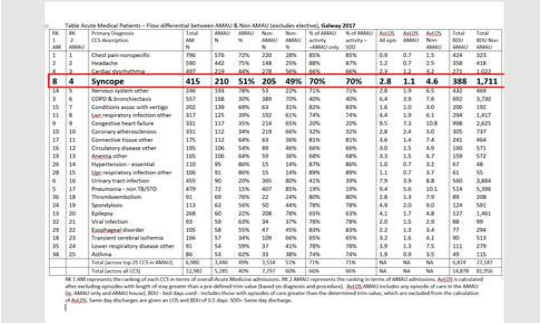
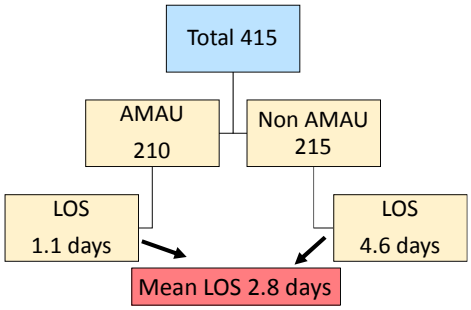


Table Acute Medical Patients – Flow differential between AMAU & Non AMAU (excludes elective), **Galway 2017**

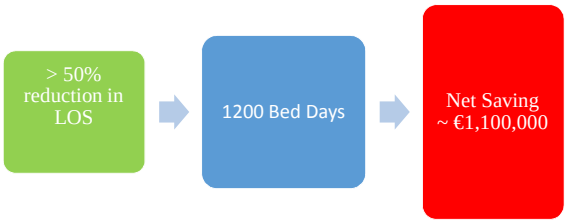
RK 1 AM	RK 2 AMAU	Primary Diagnosis CCS description	Total AM N	AMAU N	AMAU %	Non-AMAU N	Non-AMAU %	% of AMAU activity –AMAU only	% of AMAU activity – SDO	AvLOS All epis	AvLOS AMAU	AvLOS Non-AMAU	Total BDU AMAU	Total BDU Non-AMAU
1	1	Chest pain nonspecific	796	576	72%	220	28%	83%	85%	0.9	0.7	1.5	424	323
2	2	Headache	590	442	75%	148	25%	88%	87%	1.2	0.7	2.5	358	418
6	3	Cardiac dysrhythmia	497	219	44%	278	56%	84%	86%	3.3	1.3	3.7	725	1,029
8	**4**	**Syncope**	**415**	**210**	**51%**	**205**	**49%**	**70%**	**70%**	**2.8**	**1.1**	**4.6**	**388**	**1,711**
14	5	Nervous system other	280	219	78%	61	22%	71%	75%	2.8	1.9	6.5	432	469
3	6	COPD & bronchiectasis	557	168	30%	389	70%	40%	40%	6.4	3.9	7.6	692	3,730
15	7	Conditions assoc with vertigo	202	139	69%	63	31%	82%	83%	1.6	1.0	3.0	200	192
11	8	Upr respiratory infection other	317	125	39%	192	61%	74%	74%	4.4	1.9	6.1	294	1,417
9	9	Congestive heart failure	331	117	35%	214	65%	20%	20%	9.5	7.3	10.8	998	2,625
10	10	Coronary atherosclerosis	331	112	34%	219	66%	32%	32%	2.8	2.4	3.0	305	737
17	11	Connective tissue other	175	112	64%	63	36%	81%	81%	3.6	1.4	7.4	241	464
16	12	Circulatory disease other	195	106	54%	89	46%	66%	66%	3.0	1.5	4.9	190	571
19	13	Anemia other	165	106	64%	59	36%	68%	68%	3.3	1.5	6.7	159	572
26	14	Hypertension - essential	110	95	86%	15	14%	87%	86%	1.0	0.7	3.2	67	48
28	15	Upr respiratory infection other	106	91	86%	15	14%	89%	89%	1.1	0.7	3.7	61	55
6	16	Urinary tract infection	450	90	20%	365	80%	41%	39%	7.9	3.9	8.8	540	3,884
5	17	Pneumonia – non TB/STD	479	72	15%	407	85%	19%	19%	9.4	5.6	10.1	514	5,396
36	18	Thromboembolism	91	69	76%	22	24%	80%	80%	2.8	1.3	7.9	89	208
24	19	Spondylosis	113	63	56%	50	44%	78%	78%	4.9	2.0	9.0	124	591
13	20	Epilepsy	268	60	22%	208	78%	65%	63%	4.1	1.7	4.8	127	1,461
32	21	Viral infection	93	59	63%	34	37%	78%	78%	2.0	1.5	2.9	88	99
29	22	Esophageal disorder	105	58	55%	47	45%	83%	83%	2.2	1.3	3.4	77	294
18	23	Transient cerebral ischemia	166	57	34%	109	66%	65%	65%	3.2	1.6	4.1	90	513
35	24	Lower respiratory disease other	91	54	59%	37	41%	78%	78%	3.9	1.3	7.5	111	279
38	25	Asthma	86	53	62%	33	38%	74%	74%	1.8	0.9	3.5	49	115
		Total (across top 25 CCS in AMAU)	6,980	3,446	49%	3,534	51%	71%	71%	NA	NA	NA	6,874	27,587
		Total (across all CCS)	12,982	5,285	40%	7,797	60%	66%	66%	NA	NA	NA	14,878	81,956

RK 1 AM represents the ranking of each CCS in terms of overall Acute Medicine admissions, RK 2 AMAU represents the ranking in terms of AMAU admissions. AvLOS is calculated after excluding episodes with length of stay greater than a pre-defined trim value (based on diagnosis and procedures). AvLOS AMAU includes any episode of care in the AMAU (ie. AMAU only and AMAU house). BDU - bed days used - includes those with episodes of care greater than the determined trim value, which are excluded from the calculation of AvLOS. Same day discharges are given an LOS and BDU of 0.5 days. SDO= Same day discharge.

Syncope Admissions to GUH 2017



Syncope GUH 2017



Saolta

Education

Education Opportunities

- NCHD Teaching
- GP CME Groups
- ED/AMU Staff Training
- Grand Rounds
- National Meetings

- Clear visibility across Saolta Group
- Gain knowledge through Case Studies, up to date research, ECG traces and practical training sessions in syncope unit
- Avoid duplication of work by collaboration with hospital services
- Risk Assessment
- Diploma in Syncope & Related Disorders

HRB Health Research Board

R-BEAT

CRFG HRB Clinical Research Facility, Galway

Risk Based Screening for the Evaluation of Atrial Fibrillation Trial

- Stroke is a leading cause of death & the main cause of adult acquired disability in Ireland
- Atrial Fibrillation is a major modifiable risk factor
- Oral anticoagulant therapy has a two thirds risk reduction in ischaemic stroke in atrial fibrillation
- Opportunistic pulse screening in patients > 65 years results in 1% detection of PAF.
- Traditional holter monitor has limited duration (24-48 hours)
- Emergence of R Test allows prolonged (1-2 weeks) monitoring

R-BEAT

- CHA2DS2-VASc score: risk stratification of patients with atrial fibrillation
- We believe CHA2DS2-VASc score represents an opportunity to identify patients at high risk of atrial fibrillation
- Inclusion: CHA2DS2-VASc >2
- Health Research Board Funded
- Our clinical trial targets a major key care-gap in stroke prevention
- May transform our approach to detecting covert atrial fibrillation in the community

Inpatient Falls

- Appointment of Inpatient Falls Coordinator
- Policy Development (support from SJH)
- Build an MDT Falls Prevention Committee
- Sharing of knowledge/staff awareness/huddles
- Creation of a tool to identify risk factors
- Understand reported falls
- Measure under reporting

Barriers to establishing a syncope unit

- Underestimation of the consequences of syncope
  - Lack of awareness of benefit of SU on quality-of-life
- Low numbers of syncope specialists
  - Lack of formal syncope training programmes
- Wide age range of patients
  - Multi speciality skill set required
- Reluctance to introduce innovative proposals
- Multiple stakeholders
- Inadequate reimbursement
- Fear of increasing costs rather than reducing them
- Lack of awareness of benefits of syncope units

Take Home Messages

- Understand current service provisions within the group
- Clear referral pathways
- Consult with colleagues
- Engage with frontline leaders
- Understanding finances – NB in supporting your business case for syncope service
- Understand the structure & requirements of service you are providing
- Syncope Service Staffing
- Resilience
- Don't forget Administrative support, porters etc.