Driving Advice and Ambulatory ECG Monitoring in the Evaluation and Management of Syncope: A Single-Centre Audit of DVLA Guidance Adherence and Diagnostic Yield

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Background

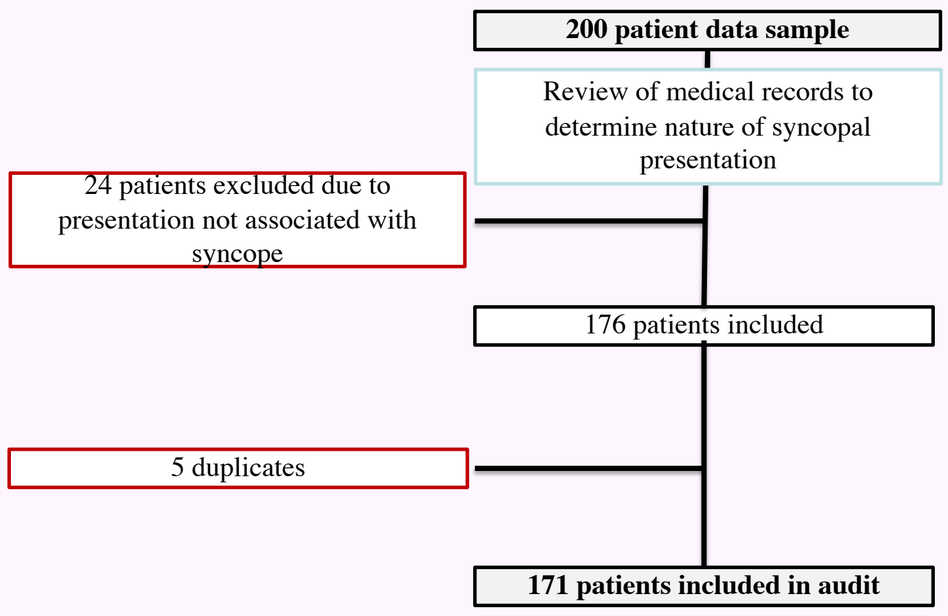
Syncope is a common presentation in Acute Ambulatory Units (AAU), with aetiologies ranging from benign vasovagal episodes to high-risk cardiac arrhythmias. UK clinicians must assess patients' fitness to drive according to DVLA guidance, while ambulatory ECG monitoring is often used to investigate arrhythmic causes. This audit evaluated adherence to DVLA guidance and assessed the diagnostic utility of ambulatory ECG monitoring.

Objectives

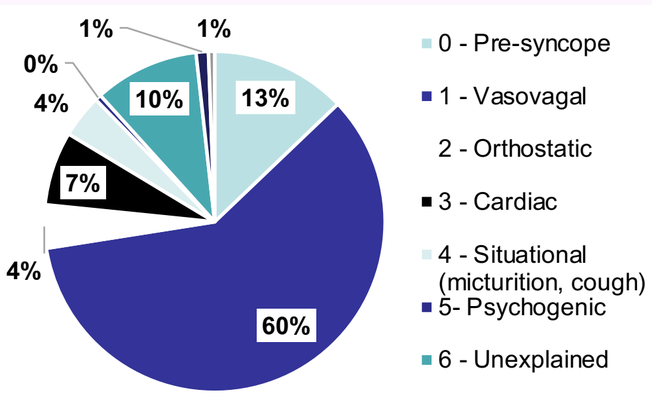
This study aimed to evaluate two key aspects of syncope management in the Acute Ambulatory Unit (AAU): first, the extent to which clinicians adhered to DVLA guidance regarding driving advice for patients presenting with syncope; and second, the diagnostic yield and clinical utility of cardiac ambulatory ECG monitoring in this population—particularly in those with normal baseline ECGs and low suspicion of cardiac syncope.

Material and Methods

- Inclusion critieria: patients who presented to the Acute Ambulatory Unit (AAU) with a working diagnosis of syncope between the period of **March 2024** to **September 2024**
- ECG results were analysed and compared to interpretation of clerking clinicians
- All ambulatory ECG monitoring results have been interpreted by electrophysiologists
- Documented driving advice noted in medical records was compared to guidance set out by DVLA guidance
- Outcomes of cardiac ambulatory ECG monitoring were determined through analysis of medical records with a focus on follow-up arrangements/interventions



Results fig. 1



Type of Syncope	17-24 y	25-34 y	35-64	65+
Presyncope	1	1	9	11
Vasovagal	7	13	37	45
Orthostatic	0	0	2	5
Cardiac	1	1	1	9
Situational	0	0	3	4
Psychogenic	0	1	0	0
Unexplained	4	2	3	4
POTS	1	0	1	0
Volume Depletion	0	0	0	1

Among 171 patients included in the audit, vasovagal syncope was the most frequently assigned diagnosis (60%). Cardiac syncope was more prevalent in patients aged >65 years. Documentation of driving status was absent in 85% of cases. Of the 18 patients identified as active drivers, five received no driving advice, including one case where omission contravened DVLA guidance. Notably, where advice was given, it was always in accordance with national guidance.

Number of Patients with Syncopal Presentation documented to be driving	
Not driving	8
Driving	18
Undetermined (i.e. not documented)	145
Total patients	171

	Advice given as per DVLA guidance:	
	Yes	No
Driving advice given (n = 43)	43	0
No Driving advice given (n = 128)	113	15

Suggested change to clerking proforma:

PMH:

Medications:

Social History:
- Smoking: Y/N
- Alcohol: Y/N
- Driving: Y/N

Age >65? Please Consider;
1. Living arrangements

2. Mobility

3. POC / ADL's

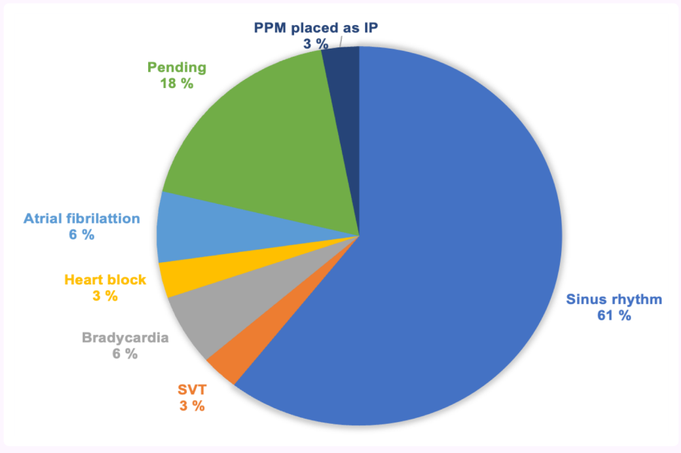
Clinical Frailty Score:
AMTS:

Results fig. 2

Ambulatory ECG monitoring was undertaken in 32 patients, including 17 with normal ECGs and no red flags for cardiac syncope. In this low-risk group, no cases resulted in a diagnosis requiring device implantation. In contrast, patients with abnormal ECGs had a 20% diagnostic yield, leading to five permanent pacemaker insertions.

ECG Findings	Number of Patients
Normal ECG	98
Abnormal ECG (excluding ECGs with evidence of conduction disease)	53
ECG with evidence of conduction disease	13
Pacemaker in situ	6
No ECG	1
Total	171

ECG Findings referred for further Cardiac Ambulatory Testing	Number of Patients
Sinus Rhythm	17
LAD	3
RAD	1
RBBB	3
Bifascicular block	1
Bradycardia	4
Atrial Premature Complexes	1
Features of LVH	1
ST Depression	1



Cardiac Ambulatory Monitor with Normal ECG findings	Number of Patients
Sinus Rhythm	13
SVT	0
Bradycardia	0
Atrial fibrillation	1
Heart Block	0
Pending	3

Cardiac Ambulatory Monitor with Abnormal ECG findings	Number of Patients
Sinus Rhythm	6
SVT	1
Bradycardia	2
Atrial fibrillation	1
Heart Block	1
Pending	3
PPM placed as IP	1

Conclusion

This audit identified a significant gap in the documentation and communication of driving advice in patients presenting with syncope. Furthermore, the findings suggest that in patients with normal ECGs and no high-risk features for cardiac syncope, ambulatory ECG monitoring rarely alters clinical management. In light of these results, a departmental decision—reached following multidisciplinary discussion—was made to incorporate a mandatory driving status prompt into the AAU clerking proforma. This structural change aims to standardize practice, improve compliance with DVLA guidance, and enhance patient and public safety. A follow-up audit is planned to assess the impact of this intervention.

References

Romano S, Branz L, Fondrieschi L, Minuz P. Does A Therapy for Reflex Vasovagal Syncope Really Exist? High Blood Press Cardiovasc Prev [Internet]. 2019;26(4):273–81.
Driver and Vehicle Licensing Agency. Assessing fitness to drive – a guide for medical professionals. 2021;(March):1–142.
Kühne M, Schaer B, Moulay N, Sticherling C, Osswald S. Holter monitoring for syncope: Diagnostic yield in different patient groups and impact on device implantation. Qjm. 2007;100(12):771–7
National Institute of Health and Care Excellence (NICE). Blackouts and syncope: Scenario
National Institute of Health and Care Excellence (NICE). Blackouts and syncope: How should I assess a person presenting with a blackout or syncope?