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INTRODUCTION

- Transthyretin amyloidosis with cardiomyopathy (ATTR-CM) is a condition characterised by the build-up of misfolded transthyretin proteins in the heart.
- Progressive myocardial amyloid deposition drives substantial healthcare resource use (HCRU) through recurrent hospitalizations, outpatient care and other contact points.

OBJECTIVE

This research aims to estimate healthcare resource utilisation (HCRU) post diagnosis in ATTR-CM patients.

METHODS

- A retrospective observational study using anonymised, linked data from:

Primary care

Clinical Practice Research Datalink

CPRD

SNOMED-CT/Read codes

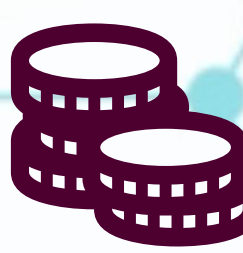
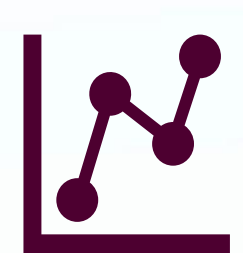
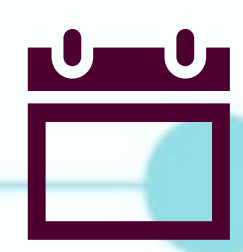


Secondary care

Hospital Episode Statistics

NHS England

ICD-10 codes



- Included individuals (≥18 years old) newly diagnosed with cardiac amyloidosis based on medical codes between January 2004 and March 2023; additional exclusion criteria were applied to define the likely ATTR-CM cohort
- Demographic and clinical data were summarised using descriptive statistics
- HCRU were assessed based on healthcare contacts after the patient's incident diagnosis until the end of patient follow-up
- Available estimates from Healthcare Resource Groups (HRGs) National Costs Grouper and published NHS tariff for GP prescriptions were applied to calculate associated costs, standardised *per person per year (PPPY)*

RESULTS

Study population



AA, serum amyloid A amyloidosis; AL, light-chain amyloidosis; MGUS, monoclonal gammopathy of undetermined significance; NS, nephrotic syndrome

Mean age:77 years (SD: 11)



67% male
33% female



Mean BMI: 26.8 kg/m²
(SD: 5.5)

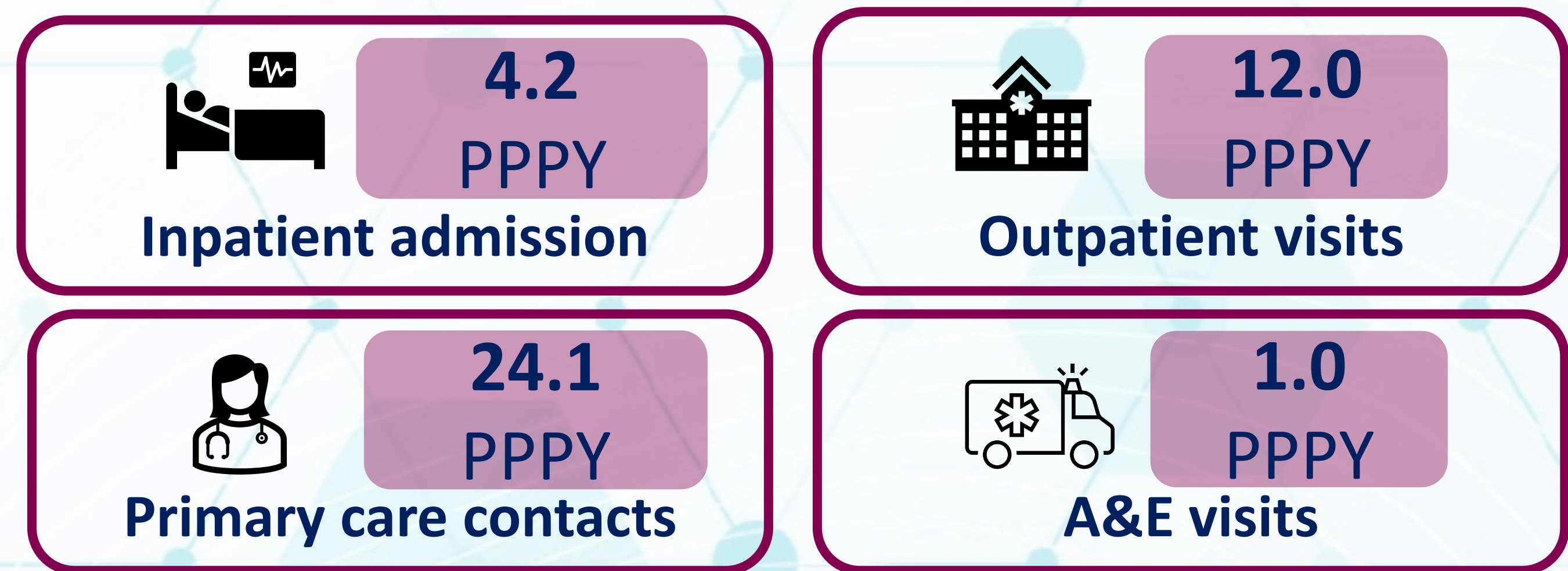
Median follow-up time: 1.1 years (inter-quartile range: 0.3-3.0)

Common comorbidities, N (%) ¹		Treatments, N (%) ²	
Heart failure	999 (65.0)	ACEi/ARB	932 (60.6)
CKD stage 3 and over	503 (32.7)	Beta blockers	828 (53.8)
CAD	592 (38.5)	CCB	465 (30.2)
Atrial fibrillation	578 (37.6)	Diuretics	389 (25.3)
Carpal tunnel syndrome	350 (22.8)	MRA	336 (21.8)
Dyspnoea	742 (48.2)	Statins	845 (54.9)
GI dysfunction	524 (34.1)	SGLT2i	25 (1.6)
Hypertension	1,174 (76.3)	Cardiac pacemaker implantation	129 (8.4)

¹ Events occurring on or before the patient's incident diagnosis
² Prescribed between one year before the patient's incident diagnosis and incident diagnosis
ACEi, angiotensin-converting enzyme inhibitor; ARBs, angiotensin II receptor blockers; BMI, body mass index; CAD, coronary artery disease; CKD, chronic kidney disease; MRAs, mineralocorticoid receptor antagonists; SD, standard deviation; SGLT2i, sodium-glucose cotransporter 2 inhibitor

Healthcare contacts

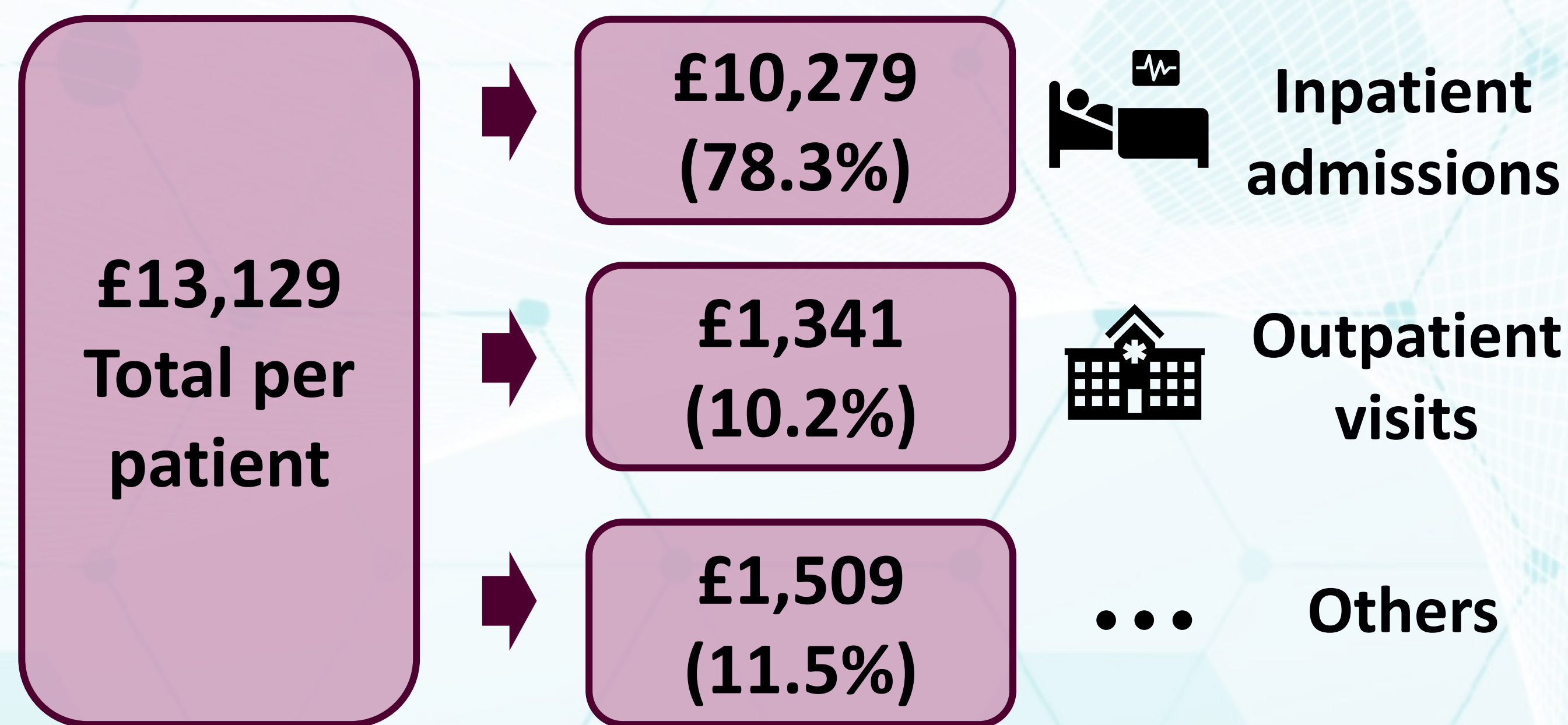
- During follow-up, 1,241 (80.7%) of patients had one or more hospital admissions within the first year after diagnosis
- Average length of stay of 5.0 days (SD: 13.3) per admission
- Over time, patients had:



- Number of visits for healthcare contacts were highest in the first year post-diagnosis, decreased in second and third years and plateaued by the end of follow-up

Healthcare costs

- Average per patient costs in the first year after diagnosis:



CONCLUSIONS

- ❑ Healthcare resource utilisation was high in ATTR-CM patients, especially in the first year after diagnosis, as reflected by hospital admissions for these patients
- ❑ This highlights the healthcare burden of ATTR-CM and the need for preventative strategies and early interventions

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