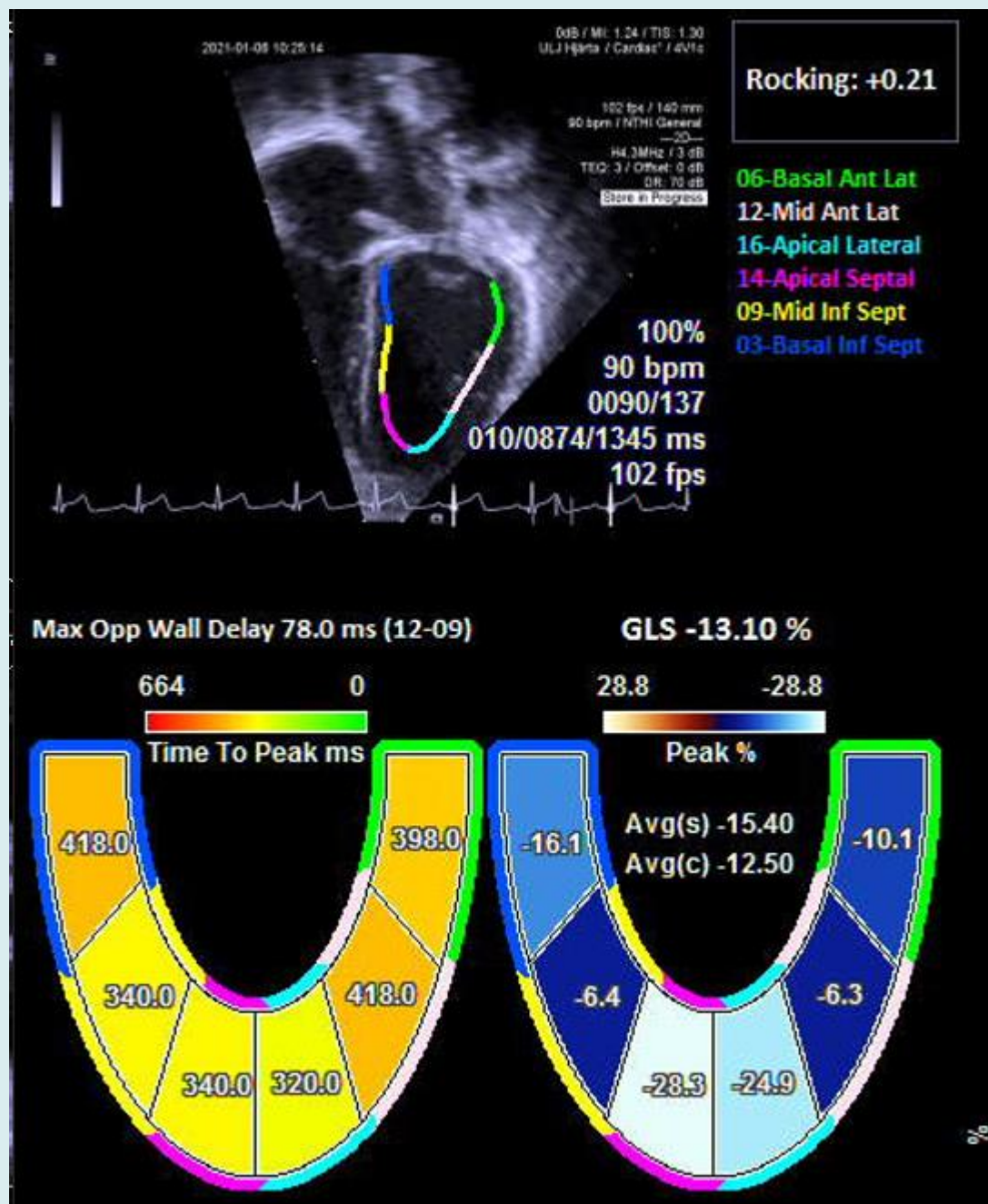


# Cardiac manifestations in the national cohort of Multisystem Inflammatory Syndrome in Children (MIS-C) in Sweden

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MIS-C reduces ventricular function and strain in affected patients.

## Proactive anti-inflammatory treatment is associated with reduced cardiac morbidity and mortality in MIS-C

**Methods:** In a retrospective registry study, data on MIS-C patients was collected from the Swedish National Quality Registry for Pediatric Rheumatology for two university hospitals with extraction of health journal data.

**Results:** 80 cases of MIS-C and three adult cases (MIS-A) were treated successfully. No deaths were observed. An outcome of improved likelihood of good ventricular function and reduced risk of coronary artery aneurysms and arrhythmias was associated with proactive treatment with IVIG, steroids and biologicals.

**Conclusion:** Proactive anti-inflammatory treatment is associated with reduced cardiac morbidity and mortality in MIS-C.

## Introduction

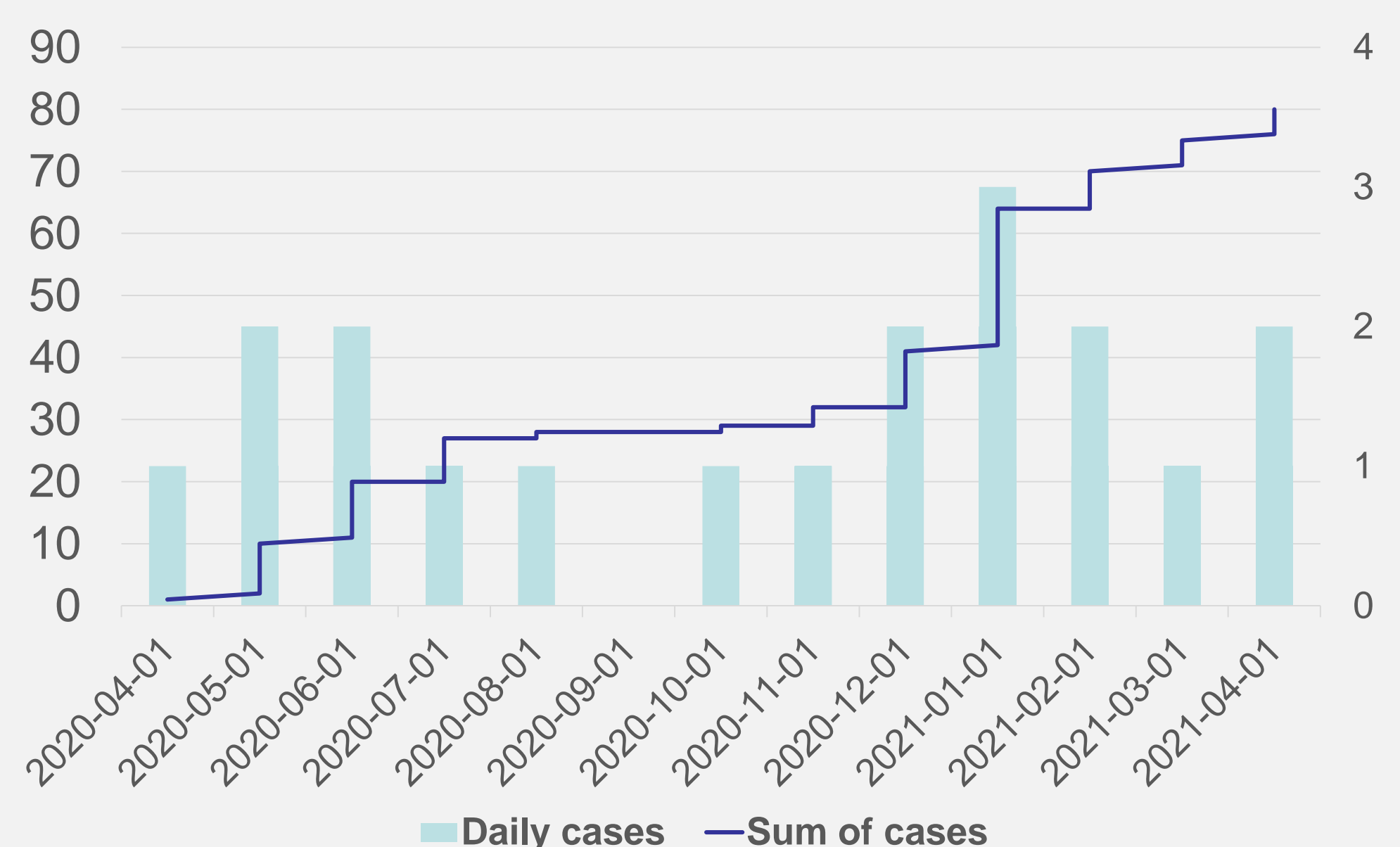
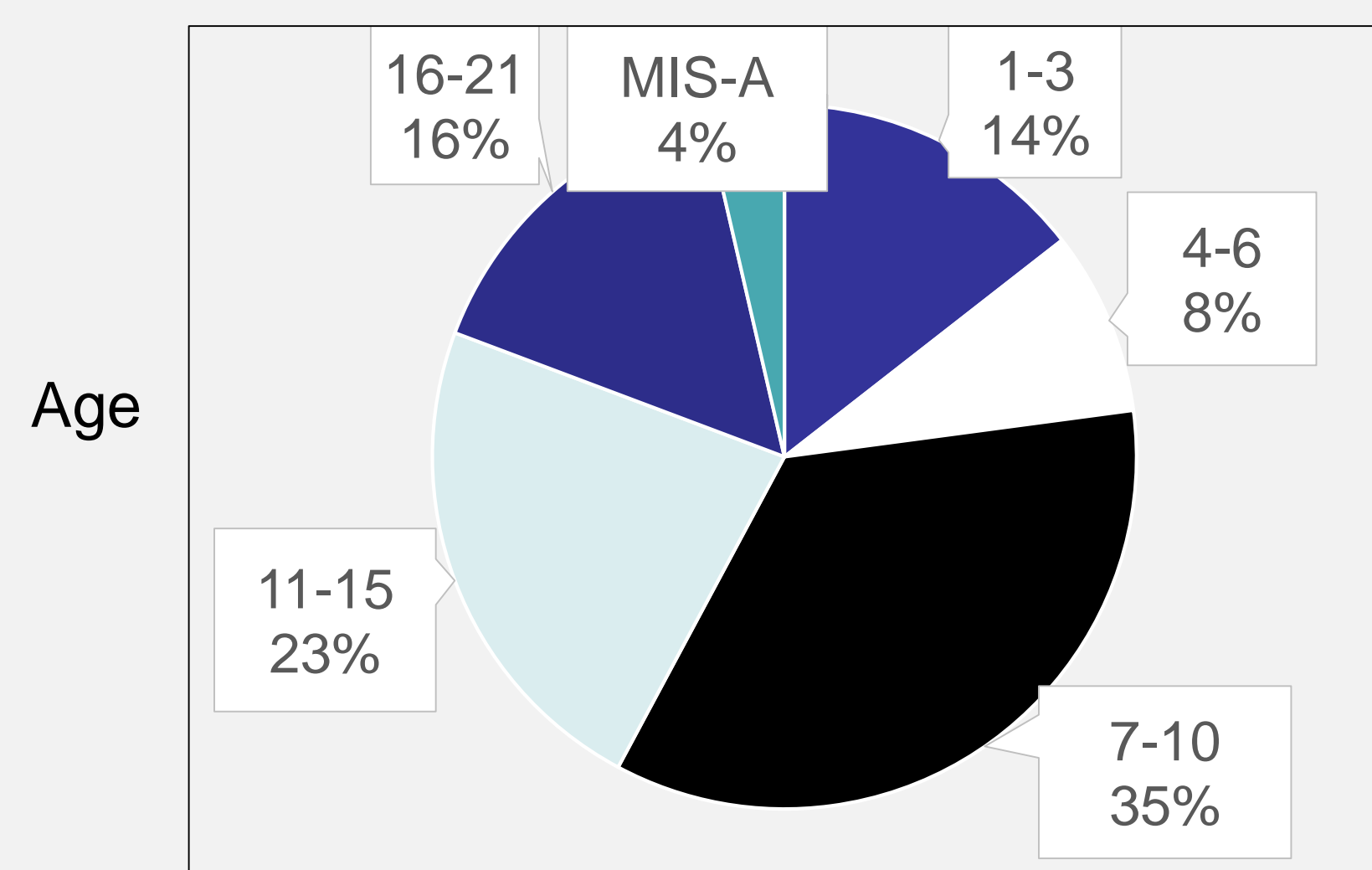
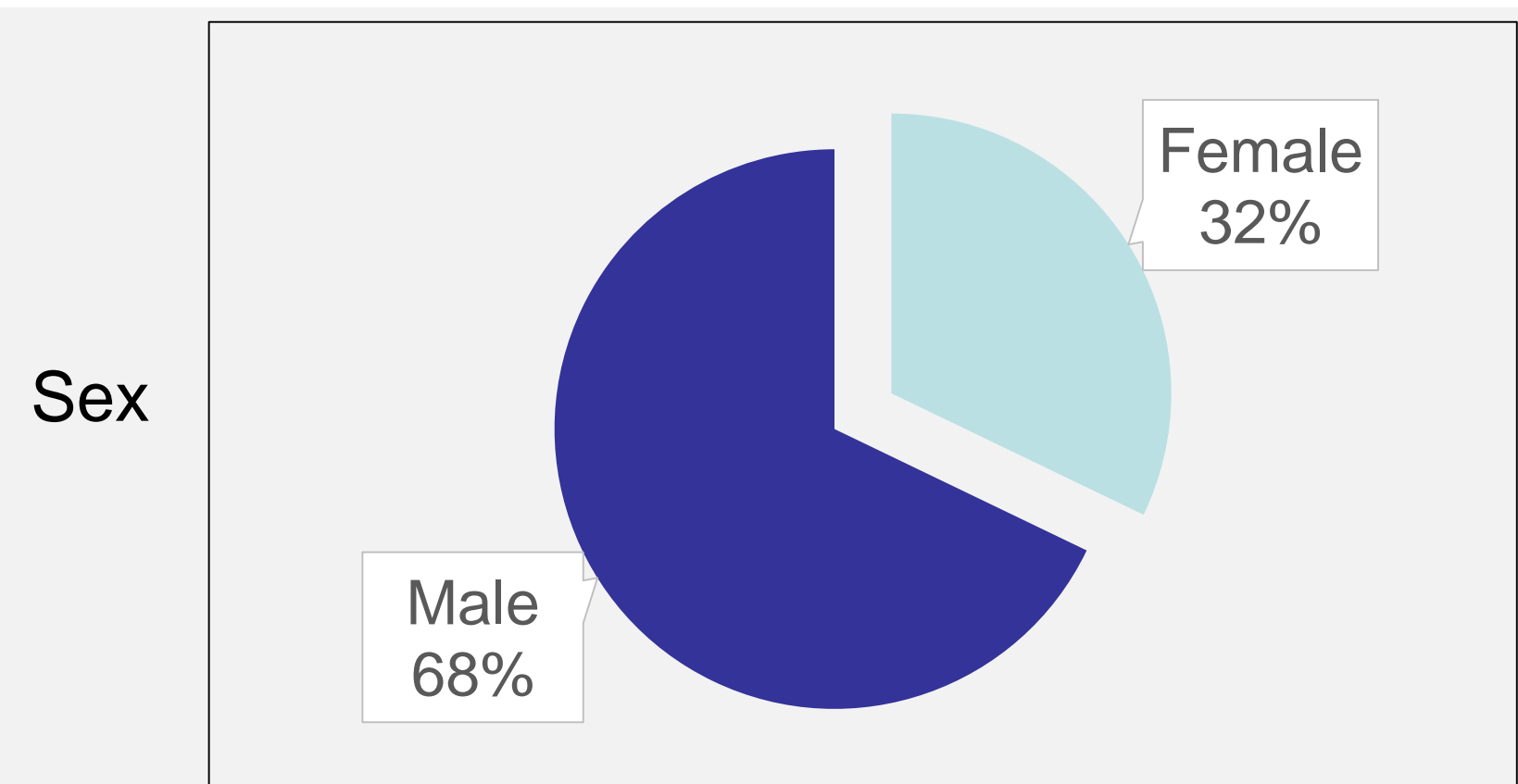
MIS-C was defined according to WHO guidelines. 278 patients are currently registered as MIS-C/A. The data from 80 cases examined at the Pediatric Heart Center Stockholm-Uppsala (Karolinska University Hospital and Uppsala University Children's Hospital, Sweden) is presented here (80 MIS-C, 3 MIS-A, no deaths). International studies have indicated that cardiac involvement has been common in MIS-C.

## Aim of the study

We aimed to describe cardiac manifestations (regarding LV function, coronary aneurysms and arrhythmias) after administration of proactive anti-inflammatory treatment in our cohort of individuals with MIS-C.

## Details

- ECMO: 1 [1.25%], cardiac biopsy 1 [1.25%]
- PICU/adult ICU: 13 [15,7%]
- Depressed LV-EF 22 [27.5%], lowest EF 25%
- Myocarditis/valvulitis: 17 [21.3%]
- Pericarditis 13 [16.2%]
- Coronary artery aneurysms: 13 [16.2%]  
(max Z-score 4.9)
- Arrhythmias: PQ prolongation 1 [1.25%], 1<sup>st</sup> and 2<sup>nd</sup> degree AV-block (2 [2.5%], 1 [1.25%]), atrial fibrillation (1 [1.25%]), repolarization abnormalities 3 [3.75%]



Future research: Kawasaki disease, MIS-C management and follow-up, Brugada syndrome



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