

## P1475

## Impact of automatic screening and parasternal rights positions in the eligibility of patients with hypertrophic cardiomyopathy for subcutaneous automatic cardioverter defibrillator implant

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### Background

A high percentage of failures in the detection of QRS and T wave in patients (pts) with hypertrophic cardiomyopathy (HCM) have been reported. This finding would prevent them from being eligible for an implantable subcutaneous automatic defibrillator (S-ICD). However, recently 2 changes in the detection have been proposed, automatic screening and the use of right parasternal position of the lead.

The aim of our work was to study if the eligibility proportion of patients was increased with both 2 advancements.

### Methods

We included 31 patients (18 male) with a diagnosis of HCM and at least 1 risk factor for sudden death, in follow-up at the outdoor clinic of 2 cardiology centers. We performed eligibility screening test in supine position and standing using both the automatic screening (AS) obtained by Boston Scientific Zoom Latitude programmer) and the manual (MS), to simulate the detection of the 3 vectors utilized in S-ICD detection. And both screens were registered with the surface electrodes in parasternal left and right position. A pte was considered eligible if at least one vector was correct in supine position and in standing position, well in parasternal left or right position.

**Results:** Using MS with left parasternal position, 22 patients (71%) were eligible. Adding the right parasternal lead, the eligibility increased by 10%, reaching 81%. In addition, in automatic screening, eligibility in right shifts (81%) it is 7% more than in the left and, with the addition of the rights to the left, the eligibility reaches up to 84%. Figure shows the three-lead ECG factors influencing screening pass vs failure.

**Conclusion:** AS, right parasternal lead position and the combination of right and left parasternal lead position, increase the eligibility of S-ICD candidates with HCM.

Abstract Figure. ECG factors influencing screening pass

