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## Improving the heart team: An interdisciplinary team and integrated practice unit

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### Abstract

*Heart Team* emerged as an important tool in the cardiovascular care, improving the efficiency of decision-making process. In addition to the benefits in patient care, it symbolizes a new culture and mindset. However, beyond the clinical condition, in low/middle-income countries other concerns arise regarding patient's background and these demands are, usually, as challenging as the medical treatment. New models have been proposed face these demands and to assure a holistic care by Integrated Practice Units. Optimization and reorganization of already existing resources and promotion of interdisciplinary and holistic care may be an effective manner to improve outcomes despite socioeconomic barriers.

**Key Words:** Heart team; Interdisciplinary; Integrated practice units; Cardiovascular; Perioperative; Surgery

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**Core Tip:** Despite emerging technologies and advanced devices, the real-world situation of low- to middle-income countries presents several socioeconomic concerns that jeopardize patients and, consequently, resources and outcomes. Our pioneer project "interdisciplinary heart team and integrated practice unit" emerged as a means by which to address these demands by prioritizing the management of existing resources.

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## INTRODUCTION

*Heart Team* (Table 1) emerged as an important tool in the cardiovascular care, improving the efficiency of decision-making process[1,2]. This multidisciplinary team-based approach has been used for decades in fields as oncology[3] and organ transplantation[4,5] to deliver the best patient care. Although is not a new concept, the term *Heart Team* was incorporated in the cardiovascular care since the publication of SINTAX Trial[6] and, more recently, the PARTNER Trial[7]. Both trials used a collaborative team-based approach to decide the better strategy to the myocardial revascularization (surgical or percutaneous) or valvular replacement (surgical or transcatheter), respectively.

Using the theory of Venn diagrams[8], this expertise's overlap among different specialties may improve the challenging decision-making process. In addition to the benefits in patient care, the *Heart Team* also promotes continue education[1,9] through the share-of-knowledge and the built of respect, trust and lasting professional relationship between its members. Besides, the interdisciplinary rounds[10,11] and the incorporation of new devices[12] has been currently used in intensive care medicine [13], reducing miscommunication and improving the comprehension of goals by all team members and patient/family satisfaction[14].

More than a medical multi-specialty interaction, it symbolizes a new culture and mindset, and it has been adopted in many cardiology fields as cardio-obstetrics[15-17], heart failure[18], valvular disease[19-21] and coronary artery revascularization[3]. Furthermore, recently published professional societies guidelines for valvular[22-24] and coronary diseases[25] includes the *Heart Team* as pivotal to both clinical and interventional therapeutic strategies, especially in complex or high-risk patients.

Beyond the clinical condition, in low/middle-income countries other concerns arise regarding patient's background and these demands are, usually, as challenging as the medical treatment[26]. Notedly on valvular disease, the socioeconomic circumstances are crucial. Low scholarship, malnutrition, limited access to the primary care, a high prevalence of rheumatic fever, management of anticoagulation and delayed time referral to cardiac surgery are some of these concerns[27]. To face these demands, new models have been proposed[28] to assure a holistic care by *Integrated Practice Units*[29].

Our institution is the public biggest cardiovascular center in Latin America, and, beyond the traditional *Heart Team*, a pioneer interdisciplinary perioperative project coordinated and supported by the Management Executive Direction has been implemented in our Valvular Diseases Unit to optimize resources and improve outcomes. Since 2018, are part of this *Interdisciplinary Heart Team* the cardiovascular surgeon, clinical cardiologist, anesthetist, nursing, psychologist, nutritionist, physiotherapist, welfare service and pharmacists. Beyond these professional, we count on a management team responsible for the logistics to optimize further necessary exams, team re-evaluation and surgical scheduling. Before referral to surgery, all-team come together to expose and solve each patients' demands. If no concerns are pending, patient is referred to waiting surgery list.

On the procedure eve the entire preoperative routine is checked by clinician, surgeon and nursing. The intraoperative and intensive care unit, patient is under care according to the clinical, safety and handover protocols. In the ward, besides daily assessment, every patient is reviewed by the entire *Interdisciplinary Heart Team*. Forecast of hospital discharge, referral to backup hospitals and other demands are discussed. At the hospital discharge, nursing and medical team provide guidance to patients and schedule the postoperative return visit consultation.

## CONCLUSION

Even with an unfavorable profile (high proportion of rheumatic disease, redo procedures, multivalvular disease and advanced heart failure status) preliminary results demonstrated reduction of waiting for surgery time and lowering mortality rates. As part of an upper-middle income country, optimization and reorganization of already existing resources and promotion of interdisciplinary and holistic care may be an effective manner to improve outcomes despite socioeconomic barriers. There is always a manner to the improvement.

**Table 1** Members of the interdisciplinary heart team responsible to solve patient's demands before they are referred to waiting surgery list

Interdisciplinary heart team members	
Clinical cardiologist	Cardiovascular surgeon
Anesthetic	Nursing
Management team	Welfare service
Psychologist	Physiotherapist
Nutritionist	Pharmacist

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