Form tool (MNA-SF) was the best approach for the screening of nutritional status in HF outpatients over other tools such as the Malnutrition Universal Screening Tool (MUST) or the Malnutrition Screening Tool (MST).
Purpose: To implement the MNA-SF screening tool in a routine way in a multidisciplinary HF Unit in order to catch those patients with malnutrition or at risk of malnutrition for further evaluation and management by a nutritionist when appropriate.
Methods: The MNA-SF screening tool was introduced in October 2016 in the global nurse evaluation of patients and scheduled to be repeated every 6 months. The scoring ranges from 0 to 14, being considered 0 to7 as malnutrition status, 8 to 11 as being in risk of malnutrition and 12 to 14 as normal nutritional status.
Results: A total of 809 assessments have been performed until November 2017 in 557 patients (mean age 69±11.6 years, 70.5% men, body mass index 28.2±4.7, LVEF 45% ± 13, NYHA class I 6.1%, II 82.6%, and III 11.3%). At first evaluation 15 patients (2.7%) fulfilled the criteria of malnutrition, 88 (15.8%) where at risk of malnutrition and 454 (81.5%) were considered to have normal nutritional status. 252 patients were reassessed at 6.8±1.7 months. Out of the 38 reassessed patients who had malnutrition or were at risk of malnutrition at first evaluation, only 1 fulfilled the criteria of malnutrition while 14 remained at risk of malnutrition. On the other hand, of the 214 patients with normal nutritional status at first evaluation 15 evolved to at risk of malnutrition and 1 to malnutrition. Thus, of the 252 reassessed patients only 2 (0.8%) fulfilled the criteria of malnutrition and 29 (11.5%) were at risk of malnutrition.
Conclusions: The implementation of the MNA-SF as a routine screening tool in a multidisciplinary HF Unit allowed detecting malnutrition and risk of malnutrition in almost one every five ambulatory patients. Malnutrition and risk of malnutrition decreased in reassessed patients at 6 months.

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Specialist nurse education and competence in remote telemonitoring of heart failure patients with implanted heart devices: a qualitative study

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Background/Introduction: Heart failure is a disorder that has an enormous impact in terms of mortality, morbidity, and costs for the healthcare organizations and systems of industrialized countries. Indications for implanted heart devices, such as pacemakers or implantable cardioverter defibrillators (ICDs) are constantly increasing, and about 40% of the patients affected by heart failure die within 12 months from the diagnosis. With the arrival of Internet and new technology nurses play a very important role with regard to the provision of healthcare and education for the self-management of chronic heart diseases. In fact, nurses require specific competencies to conduct the remote telemonitoring of patients and data, in communicating the most critical cases to physicians, and checking the compliance and benefits of treatment.
Purpose: The purpose of this study was to describe the educational experiences of nurses who deal with remote telemonitoring of patients with an implanted heart device in Italy.
Methods: Our sample consisted of 10 nurses working in six cardiology outpatients' clinics who performed remote telemonitoring of heart failure patients with an implanted heart device, such as a pacemaker or an implantable cardioverter defibrillator. With each of these ten nurses we conducted a semi-structured interview to understand what type of education and practical training they had received in relation to their current practice in the field of cardiac nursing.
Results: Currently in Italy there is no standardised and well-defined training for nurses who perform remote telemonitoring activities for heart failure patients that have an implanted heart device. We found that the nurses included in our sample had different educational curricula and learning experiences. The majority of our sample reported that they gained their competencies directly through their experience on the field and after attending a specific course in electrophysiology and electrostimulation. Therefore, what emerged from our data was that nurses who perform remote telemonitoring activities do not all receive the same type of education and training. In Italy, to the best of our knowledge, there are no nurses that receive specific education and training in this field.
Conclusion(s): In many North European countries there is a long-standing educational and cultural tradition with regard to remote telemonitoring, where in fact there are many heart failure clinics that are totally run and led by nurses. Despite the small sample size of this study, it shows how specific education and training in the field of remote telemonitoring is still not implemented, and yet it is instrumental to have appropriate knowledge and training to effectively perform this type of activity and care, especially in the field of cardiac nursing.

REFINING RISK ASSESSMENT IN HYPERTENSION

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Pulse pressure and cardiovascular outcomes in high-risk individuals enrolled in the Systolic Blood Pressure Intervention Trial (SPRINT)

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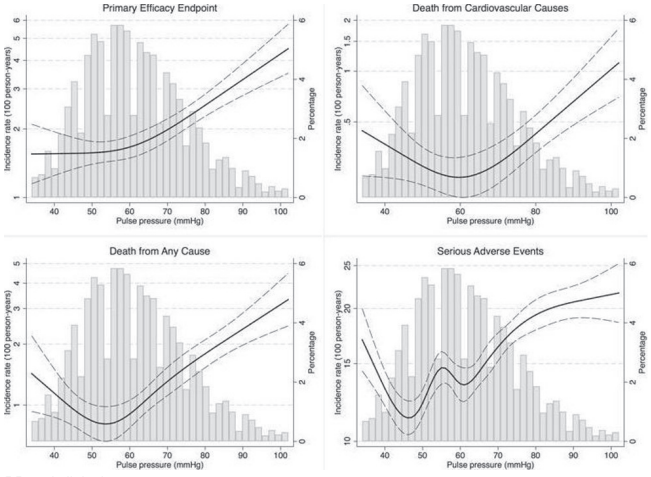
Background: It is unclear whether the efficacy and safety of intensive blood pressure (BP) lowering varies by pulse pressure (PP), defined as the difference between systolic and diastolic BP. Patients with increased PP, which may track with age and arterial stiffness, may be at higher risk for adverse events with intensive blood pressure lowering.
Purpose: To assess the relationship between baseline PP, treatment response to intensive BP lowering, and cardiovascular (CV) outcomes.
Methods: SPRINT was a randomized, controlled trial in which 9,361 individuals ≥50 years of age at high CV risk but without diabetes who had a systolic BP 130–180 mmHg were randomized to intensive (target systolic BP <120mmHg) or standard antihypertensive treatment (target systolic BP <140mmHg). The primary efficacy endpoint was the composite of myocardial infarction, other acute coronary syndromes, stroke, heart failure, or death from CV causes. The primary safety endpoint was the composite of serious adverse events (SAE). We examined the prognostic implications of baseline PP using 1) restricted cubic splines for the test of linear, non-linear, and overall trends with clinical outcomes; 2) Cox proportional-hazards regression models with PP quartiles, adjusted for demographic, clinical, and laboratory variables; and 3) restricted cubic splines for the effects of intensive BP lowering on clinical outcomes across the spectrum of PP values (test for interaction). SPRINT is registered at ClinicalTrials.gov.
Results: Mean baseline PP was similar between the two study groups (intensive treatment 61 mmHg vs. standard treatment 62 mmHg; P=0.59). The four quartiles were defined as follows: quartile 1, ≤51 mmHg; quartile 2, 52–60 mmHg; quartile 3, 61–70 mmHg; quartile 4, ≥71 mmHg. Median follow-up duration was 3.3 years (range 0–4.8), with 562 composite primary efficacy events (6%) occurring over the course of the study. Except stroke, for which the association with PP was best defined as linear, PP displayed a non-linear relationship with the risk of all tested clinical endpoints (test for non-linearity, P<0.05; test for overall trend, P<0.05). The Figure shows the incidence rate of these endpoints as a function of PP. Although quartiles 2 and 3 generally appeared to harbor a lower risk than quartiles 1 and 4, no associations remained significant upon multivariable adjustment (P>0.05). However, the benefit of intensive BP management on mortality was greatest in patients with a PP ~60 mmHg (P=0.03 for interaction). PP did not modify the risks and benefits of intensive BP lowering for other clinical endpoints (P>0.05 for interaction).



PP and clinical outcomes

Conclusions: In SPRINT, PP served as an easily calculated marker of CV risk and further identified patients who were at increased risk for SAE. However, the excess risk associated with PP was accounted for by major CV risk factors. Patients with a PP ~60 mmHg appeared to have a greater mortality benefit from intensive BP lowering.

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Body mass index and intensive blood pressure management in high-risk adults: insights from the systolic blood pressure intervention trial SPRINT)

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Background: Patients with non-ideal body mass index (BMI) face excess cardiovascular (CV) risk, but it is unclear whether intensive blood pressure (BP) management is well-tolerated and modifies this risk uniformly across the BMI spectrum.