

**Results.** There were twenty-one (20 percent), thirty-three (32 percent), three (3 percent), forty (39 percent) and six (6 percent) procedures at IDEAL stages 1, 2, 2a, 3 and 4, respectively. Of those at stage 1 (idea), 48 percent were given research only arrangements, 43 percent special arrangements, and 10 percent standard. Many of the procedures at stages 2 (development) and 2a (exploration) were given standard arrangements (39 percent and 67 percent respectively). Forty-three percent of stage 3 (assessment) and 67 percent of stage 4 (learning) guidance were identified standard. At stage 4 none were given a 'research only' recommendation.

**Conclusions.** Procedures given 'standard' arrangements guidance are more likely have a mature and robust evidence base as determined by IDEAL. Those with limited evidence are more likely to be given a more cautious 'research only' guidance. Routine use of this framework could help inform future guidance production however cannot replace the decision-making function of the NICE committee which also involves patient experiences, population characteristics, risk of serious safety events, and equity issues.

## VP23 Assessing The Effectiveness Of A Medical Device With Limited Evidence

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**Introduction.** SecurAcath (Interrad Medical), a catheter securement device designed for central venous catheters, was assessed by the National Institute for Health and Care Excellence (NICE) in 2017 resulting in Medical Technology Guidance 34 (MTG34). Due to the limited number and quality of published evidence, novel methods were used to deliver a report that allowed a recommendation on adoption to be made.

**Methods.** KiTEC, an external assessment centre for NICE, independently evaluated the manufacturers submission of clinical and economic evidence. The submission was characterised by a lack of strong clinical evidence, comprising just one randomized clinical trial (RCT) and a small number of non-comparative observational studies, some of which were available as conference abstracts or poster presentations. KiTEC ran a meta-analysis of these studies along with data on the comparators, securement with sutures and securement with StatLock (Bard Access Systems). Due to the lack of comparative studies, KiTEC pooled data on five outcomes (migration, dislodgement, catheter-related infection, CRBSI, unplanned removals/reinsertions) and calculated relative risks for each. KiTEC revised the manufacturer's cost model, changing a number of parameters and assumptions. The decision to recommend SecurAcath for use in the National Health Service (NHS) was also supported by qualitative evidence from expert clinicians who had used the SecurAcath in practice.

**Results.** KiTEC's meta-analysis showed non-inferiority for SecurAcath over the comparators. The limited information in the studies made it impossible to ascertain study heterogeneity in the meta-analysis. KiTEC's economic analyses showed that SecurAcath could be cost saving in some scenarios, but not for short indwell times ( $\leq 5$  days). However, clinical expert opinion was overwhelmingly positive and this qualitative evidence was viewed alongside the less conclusive clinical and cost-effectiveness

evidence. SecurAcath was recommended to be used in the NHS, with annual savings estimated to be a minimum of GBP 4.2m.

**Conclusions.** In cases where there is a lack of published evidence, unpublished material and expert clinical opinion can be used to bolster the case for the adoption of medical devices.

## VP25 HTA Enables Nurses To Discontinue Continuous ECG Monitoring

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**Introduction.** Providers frequently issue orders for telemetry (continuous ECG monitoring) of hospital inpatients, but they rarely issue orders to discontinue telemetry. This can cause telemetry beds to be unavailable for patients who need them.

**Methods.** Our hospital health technology assessment (HTA) center conducted a rapid systematic review of evidence on algorithms, guidelines, and other tools for nurses to identify patients who no longer need telemetry. Databases searched included Medline, CINAHL, the Cochrane Library, National Guideline Clearinghouse, and Joanna Briggs Institute.

**Results.** We found no guidelines or existing systematic reviews of nurse-driven protocols for discontinuing telemetry. There were three published articles describing projects where protocols for discontinuing telemetry were tested. All three of these studies were of low methodologic quality. They all found that use of the protocol reduced the number of hours of telemetry monitoring that were used in the hospital. Two studies published in letter form reported adaptations of computerized order entry systems where nurses assess the patient's readiness for discontinuing telemetry and either discontinue telemetry or report to the ordering physician when the stated discontinuation criteria are met.

**Conclusions.** Our hospitals are now implementing the HTA findings in our electronic ordering system.

## VP26 HTA In Nursing: Scoping Trends With An ICF Component Analysis

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**Introduction.** Nursing is a worldwide growing but still underdeveloped health technology assessment (HTA) field. A systematic overview about the current trends in HTA and nursing would shed some light on the issues of (i) the HTA base in this sector, and (ii) outcomes addressed with the interventions and technologies.

**Methods.** We conducted a scoping review using the National Health Service (NHS) Centre for Reviews and Dissemination HTA database, including all abstracts of HTA reports related to nursing. To systemize the interventions and technologies assessed in the HTA reports, we designed an International Classification of Functioning, Disability and Health (ICF) Map connecting the

targeted healthcare outcomes with the components of the ICF Classification.

**Results.** We identified seventy-eight HTA reports related to nursing care, published between the years 1992 and 2018. Overall, forty-four reports did not outline any particular outcome and had to be categorized as unclear. The remaining thirty-four reports addressed three ICF components (body functions, activities/ participation, environmental factors) with sixty-eight ICF content categories. Frequent ICF contents were services, systems and policies (code e5, n = 15), cardiovascular/ respiratory functions (code b4, n = 10), mental functions (code b1, n = 7), digestive functions (code b5, n = 7), domestic life (code d6, n = 7), and sensory functions/ pain (b2, n = 6). Six HTA reports evaluated interventions/ technologies with presumed effects on at least four ICF content categories from two ICF components.

**Conclusions.** HTA in the field of nursing is often complex, including multicomponent approaches and a wide range of potential outcomes relevant for the HTA assessment. The ICF model might be useful to support a more streamlined understanding of complex interventions in this sector. Furthermore, reports might benefit from linking the ICF Classification with HTA, especially for the assessment of complex interventions.

## VP27 Countrywide Screening Of Cardiovascular Diseases Through Telemedicine

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**Introduction.** Through telemedicine, advantageous telediagnostic systems can be developed to improve the health care of populations that do not have access to specialists. However, evidence on how such innovation technology can enhance the countrywide electrocardiographic (EKG) screening to support a prevention program for cardiovascular diseases is limited. The usability of telemedicine to improve the countrywide detection of heart diseases according to the national cardiovascular disease prevention program in Paraguay was investigated.

**Methods.** This cross-sectional survey included adults ( $\geq 19$  and  $\leq 80$  years) and children ( $\geq 1$  and  $\leq 18$  years) with medical prescription. The study was carried out by the Telemedicine Unit of the Ministry of Public Health and Social Welfare (MSPBS) in collaboration with the Department of Biomedical Engineering and Imaging of the Health Science Research Institute (IICS-UNA) to evaluate the utility of a telediagnostic net for detection and prevention program of cardiovascular disease in public health. For this purpose, the results obtained by the EKG telediagnosis net implemented in sixty countrywide public hospitals were analyzed and verified the adherence to the cardiovascular prevention program.

**Results.** A total of 246,217 remote EKG diagnoses were performed between January 2014 and August 2018. Of the total, 80.6 percent (198,494) corresponded to adults and 19.4 percent (47,723) to children. The adult diagnoses were mainly normal (66.3 percent), sinus bradycardia (11.2 percent), right bundle branch block (4.8 percent), left ventricular hypertrophy (4.7 percent), ventricles repolarization

disorder (4.4 percent), sinus tachycardia (4.4 percent), ischemia (1.7 percent), atrial fibrillation (1.1 percent), left bundle branch block (0.7 percent), and unspecified arrhythmias (0.6 percent). The children's diagnoses were mainly normal (79.4 percent), sinus bradycardia (10.6 percent), sinus tachycardia (3.2 percent), unspecified arrhythmias (2.8 percent), right bundle branch block (1.9 percent), left ventricular hypertrophy (1.0 percent), left bundle branch block (0.4 percent), ventricles repolarization disorder (0.3 percent), and atrial fibrillation (0.2 percent). The mean adherence rate to the prevention program was 2.3 between 2014 and 2018 for each thousand diagnosis performed.

**Conclusions.** The results show that the telemedicine can enhance significantly the EKG screening to support a prevention program for cardiovascular diseases and health programs. However, before carrying out its systematic implementation, a contextualization with the regional epidemiological profile must be performed.

## VP28 Building A Virtual Diagnosis Network Through A Telemedicine Platform

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**Introduction.** Advances in information and communication technology (ICT) and health technology have enhanced healthcare for many countries around the world. The challenge for low income setting countries is to build a telemedicine platform to enhance the community hospital diagnosis response capacity. Populations living in remote areas did not have access to specialist care and quality diagnostic services and thus depended on the low response capacity of their local health system. There were subsequent equity issues between urban and rural populations. In this context the virtual telediagnosis network should be directed towards developing better equity in the provision of services in remote locations without access to specialists. The usability of a telemedicine platform to enhance the virtual diagnosis network of community hospitals in rural areas of Paraguay was investigated.

**Methods.** This descriptive study was carried out by the Telemedicine Unit of the Ministry of Public Health and Social Welfare (MSPBS) in collaboration with the Department of Biomedical Engineering and Imaging of the Health Science Research Institute (IICS-UNA) and the University of the Basque Country (UPV / EHU) to evaluate the utility of a telemedicine platform to enhance the virtual diagnosis network of community hospitals. For this purpose, the results obtained by the virtual telediagnosis network implemented in sixty public countryside community hospitals were analyzed.

**Results.** A total of 427,026 remote diagnoses were performed between January 2014 and October 2018 in sixty community hospitals. Of the total, 35.76 percent (152,703) corresponded to tomography studies, 62.55 percent (267,100) to electrocardiography (EKG), 1.68 percent (7,204) to electroencephalography (EEG) and 0.01 percent (19) to ultrasound. There were no significant differences between the remote and the face-to-face diagnosis. With the remote diagnosis a reduction of the cost was obtained, that supposes an important benefit for each citizen of the sixty communities.