likely to be cost-saving (in three studies). Prevalence of disease, diagnostic accu-

cy, and treatment are the most influential variables. Random uncertainty, speci-

fity and the cost of FET were 53%-100%, 82%-95% and €787-€1,225, respec-

tively. Sources of bias in the diagnostic accuracy studies were mainly related to the

representative patient population and interpretation of the index test and refer-

ence case. Critical assessment of the CEAs revealed that issues of documentation, fea-

sibility, and generalizability of findings to daily practice were key areas affecting

quality. CONCLUSIONS: FET, as a reliable diagnostic tool, has the potential to

improve disease detection and avoid futile procedures that can lead to morbidity

and high costs. Given the limitations of the existing studies, future CEAs should

progressively explore the expanding applications and cost-effectiveness of FET in

SCCHN.

PMED5

COST-EFFECTIVENESS IN DIAGNOSTIC TESTS: COMPARISON OF THE IBD PRE-

ENDOSCOPIC SCREENING F-CALPROTECTIN TEST VERSUS SEROLOGIC

MARKERS IN SELECTED EUROPEAN MARKETS

Mascalino B1, Hermansson LL2, Larsson A3

1Thermo Fisher Scientific, Uppsala, Sweden, 2Uppsala University, Uppsala, Sweden

OBJECTIVES: The majority of bowel disorders exhibit a limited number of over-

lapping symptoms, making diagnosis very difficult in primary care. The inflammatory

bowel diseases (IBD) are characterized by chronic inflammation of the gastrointesti-

nal tract; the irritable bowel syndrome (IBS) is a functional disorder, with preva-

lence 10%-20% (Bellini, 2011). Endoscopy is considered as the gold standard proce-

dure for detecting and quantifying IBDs, but due to the low prevalence of IBD (Molodecky, 2012), it turns negative in most of the cases, it is expensive, uncom-

fortable and risky for the patient. F-Calprotectin is a faecal marker of intestine

inflammation, IBD patients exhibit F-Calprotectin levels significantly higher than

the general population; IBS patients have F-Calprotectin levels significantly lower

than IBD patients. Therefore, F-Calprotectin can be used as a pre-endoscopic tech-

ique to differentiate between IBD and IBS. We aim at evaluating the cost-effec-

tiveness of F-Calprotectin tests compared to the standard pre-endoscopic tests (com-

bined usage of serologic markers CRP - C-reactive protein - and ESR - erythro-

cyte sedimentation rate) to distinguish IBD from IBS in selected European markets

(UK, SW, FR).

METHODS: F-Calprotectin and CRP-ESR test accuracy was evaluated on existing data; the costs (diagnostic tests, diet, medications, and indirect costs) were collected from the literature. The analysis was tailored to children, teenagers, and adults. The outcomes include cost avoidance, cost per corrected IBD diag-

nosed, and endoscopies reduction. Uncertainty was addressed with sensitivity analysis. RESULTS: Results show that the usage of F-Calprotectin is cost-effective with respect to CRP-ESR: if it is performed only once per adult patient and compared to CRP (ESR), h) it reduces the number of unnecessary endoscopies. CONCLUSIONS: F-Calprotectin is a cost-effec-
tive methodology to rule out IBD at the primary care level, and it has a higher accuracy than CRP-ESR.

FMED6

A REVIEW OF ECONOMIC EVALUATION MODELS FOR CARDIAC RESYNCHRONIZATION THERAPY WITH IMPLANTABLE CARDIOVER-

DEFIBRILLATORS IN PATIENTS WITH HEART FAILURE

Tomini F, van Asselt AD

Maastricht University Clinical Center, Maastricht, Limburg, The Netherlands

OBJECTIVES: Cardiac resynchronization therapy with biventricular pacemaker

(CRT-P) is considered an effective treatment for heart failure (HF). Adding implan-
table cardiovascular defibrillators (CRT-D) may further reduce the risk of sudden car-
diac death (SCD). However, economic evaluations have shown that incremental cost-
effectiveness ratios (ICERs) of CRT-D are substantially higher than for comparators, due to large numbers of patients which do not get additional benefits from CRT-D. Therefore, current research, like ‘biomarkers to predict cardiac fail-

ure, arrhythmias and success of treatment’ (CONRAD, is trying to identify a set of

(bio)markers that predict the response to CRT-D. The objective of this study was to

review full economic models evaluating implantable CRT-D for patients with HF, make compare the structure and inputs of the cost-effectiveness models and identify the main factors influencing the ICERs for CRT-D. METHODS: A comprehensive search strategy of PubMed, Embase, Web of Science identified six full economic models evaluating CRT-D against optimal pharmacological therapy (OPT) and/or CRT-P. All studies included a Markov or other state transition model for the long term fol-

low-up of the HF patients. Four studies included a comparison of CRT-D with CRT-P while two studies compared CRT-D with OPT. Studies differed in terms of time horizons and comparators. The inputs for the models were mainly taken from two trials, only one of which compared CRT-D and CRT-P to OPT. Generally, CRT-D was found cost-effective when compared to OPT but its cost-effectiveness became questionable when compared to CRT-P. This depended on cost of devices, mortal-

ity and quality of life. CONCLUSIONS: A better identification of patients that are more likely to benefit from CRT-D (i.e. those with higher risks of SCDs) will certainly have an effect on the cost-effectiveness of this technology in comparison to CRT-P.

PMED7

THE COST EFFECTIVENESS OF HAND HELD ULTRASOUND SCANNING FOR AAA IN ELDERLY SUBJECTS WITH A HISTORY OF SMOKING

Flah D1, Mallow P2, Rizzo JA3

1Genentech, 2George Washington University, Washington, DC, USA, 3Genentech, San Francisco, CA, USA

OBJECTIVES: Abdominal aortic aneurysm (AAA) is a chronic, progressive disease

that often requires surgical repair. The risk of rupture and death both increase with

the size of the aneurysm. Scanning patients to identify the presence of an aneu-

rysm and monitoring its growth is an important diagnostic practice for managing

these patients. The present study investigates whether the use of a portable hand-

held device is cost-effective in a hypothetical population of 10,000 (e.g., 65 years of

age) male subjects with a history of smoking who would otherwise not be screened

for AAA.

METHODS: The study performed cost utility analysis, developing a simula-

tion model that compared the incremental cost per quality-adjusted life year gained for four alternative scenarios. Scenario I received no scanning and Scenarios II – IV differed on what size AAA was to be treated if detected. Model input values were taken from the literature. The screened scenarios differ in terms of the size at which aneurysms were treated surgically. RESULTS: The total expected costs were: $20.4 million, $33.2 million, $19.8 million, and $18.7 million for Scenarios I to IV respectively. The total expected deaths were: 72, 39, 50, and 58 for Scenarios I to IV respectively. The incremental cost-effectiveness ratio for Scenario II vs. Scenario I was $64,160. Compared to Scenario I, Scenario III and IV were dominant.

CONCLUSIONS: Under all of the treatment arms, the use of the handheld scanning device was cost effective relative to the Scenario I cohort. Treating patients with medium or large aneurysms (Scenario II) was not cost-effective. Further analyses may expli-
citly enhance the cost effectiveness. These results suggest that primary care physicians should consider this device as a cost effective method to identify and treat AAA patients among male patients who are elderly and have a history of smoking.

PMED8

HEALTH-ECONOMIC ANALYSIS OF THE SYSTEMATIC USE OF SINGLE-HAND SECURED HUBER NEEDLES (SSH) VERSUS DOUBLE-HAND HUBER NEEDLES (THN) FOR ULCERATIVE COLITIS (UC) PATIENTS

Van der Bijl S1, Trounier c1, Levert H1, Douard MC2, Villiers S2, Albert O3

1SiCIV Consultants, Oullins, France, 2Hôpital Saint-Louis, Paris, France

OBJECTIVES: Implantable ports (IPs) are widely used in therapeutic areas where

frequent vascular accesses are required. The use of IPs represents a practical solu-

tion and offers comfort to patients; however it is associated with significant ob-

struction rate, which may lead to high hospital costs. Single-secured huber needles

(SSHNs) are designed to reduce the frequency of catheter obstructions compared to two-hand Huber needles (THNs). To assess the economic and organi-

zational impact of the systematic use of SSHN from a hospital perspective, a deci-

sion tree model was designed. METHODS: Resource consumptions and costs (Euros 2012) associated with the systematic use of SSHN and THN were collected in French hospitals of Paris area (AP-HP). Both strategies were evaluated along the reperfu-

sion tree model. RESULTS: In patients with high probability of obstruction, the sys-

tematic use of SSHN was found to be cost-effective. The strategy with single-secured

huber needle was more cost-effective than the THN strategy by €147,540 versus

€174,897. In total, a cost of €16,259 related to consumables and medical procedures would be directly saved from the implantation budget. The treatment would require full-time equivalent (FTE) and 0.3 medical FTE, which could be reallocated to other activi-

ties. DSAs showed that baseline obstruction rate is the most influential variable for annual cost and PSA confirmed that SSHN is the least expensive strategy.

CONCLUSIONS: The reduction of use of consumables derived from the model was

in line with observations in AP-HP. The systematic use of SSHN would probably lead to a reduction in expenses for hospitals, and staff time saved.