disinvestment in intramuscular beta-interferon and was the first case of clinical guideline update using real-world evidence in Brazil.

## OP42 Cost-Benefit Of Computed Tomography In Secondary Hospitals In China

#### **AUTHORS:**

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#### **INTRODUCTION:**

With the promotion of a tiered medical service system, secondary hospitals will play a more important role in the future. This study aims to explore the cost-benefit of computed tomography (CT) in secondary hospitals in China, with a view to providing information for overall economic management in hospitals as well as for regional planning of medical equipment in different areas.

#### **METHODS:**

Fifty-eight secondary hospitals from six provinces located in the eastern, central, and western regions of China were selected as the study sample.

Questionnaires were used to collect information on the cost structure, efficiency, and benefits of CT in the secondary hospitals in the past 5 years. Cost analysis was conducted from the perspective of the hospitals, which mainly referred to direct fixed costs and variable costs. We analyzed the investment recovery years <sup>a</sup>, cost recovery rate <sup>b</sup>, and benefit-cost ratio to evaluate the economic benefits of CT. We also analyzed the technological benefits of CT based on its effective utilization rate <sup>c</sup> and positive detection rate.

- a: Investment recovery years = total original investment / (annual net income + annual depreciation expense)
- b: Cost recovery rate = average income per check / average cost per check

 c: Effective utilization rate = single equipment utilization rate \* positive detection rate
 (Single equipment utilization rate = actual working time / rated working time)

#### **RESULTS:**

Depreciation costs (36.3 percent) were the largest proportion of all costs over the 5-year period, followed by material costs (22.2 percent), maintenance costs (18.2 percent), labor costs (17.1 percent), and electricity consumption (1.2 percent). The investment recovery periods of CT in the eastern, central, and western regions were 2.5, 2.8, and 3.1 years, respectively; the cost recovery rates were 186.5 percent, 172.0 percent, and 174.1 percent, respectively; the benefit-cost ratios were 1.9, 1.7, and 1.7, respectively; the effective utilization rates were 46.1 percent, 58.3 percent, and 71.2 percent, respectively; and the positive detection rates were 52.3 percent, 60.5 percent, and 73.3 percent, respectively.

#### **CONCLUSIONS:**

The current study indicates that the cost-benefit of CT is good in secondary hospitals, especially in terms of economic benefits. But to achieve greater technological benefits in all three regions, more appropriate utilization of CT is needed.

# OP43 Unconventional Health Technology Assessment Use: Diagnosis Of Likely Emerging Tropical Diseases

### **AUTHORS:**

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### **INTRODUCTION:**

The increase in travelers and refugees combined with global warming may soon lead to the development of tropical diseases such as *Schistosoma* or *Strongyloides* infections in some European countries.

Those intestinal parasites may persist for decades with subclinical infections or low-grade disease with nonspecific manifestations. In the presence of immunosuppression, strongyloidiasis can rapidly evolve into life-threatening disseminated disease, whereas chronic schistosomiasis can lead to complications causing future morbidity and death.

Currently in France, an update of diagnostic tests reimbursed for those tropical diseases is ongoing to fully cover diagnostic needs.

Our aim was to assess the clinical relevance of tests used in schistosomiasis' or strongyloidiasis' diagnosis and include the most relevant in the national list of reimbursed tests.

### **METHODS:**

The assessment involves a critical analysis of national and international guidelines identified by a systematic literature search, and stakeholders' views.

#### **RESULTS:**

This work identifies several autochthonous outbreaks of those diseases in France; such as urogenital schistosomiasis that occurred in Corsica, in summer 2013. Also it enlightens the increase of strongyloides serological tests performed in the past years. Those facts prove the potential development of those infections in Europe.

It underlines that, serology is the first diagnostic test line for most cases and is more sensitive than stool microscopy which represents however the final diagnostic investigation to confirm the intestinal infection.

It confirms the main indications of those two diagnostic tools.

It relies on a tropical infectious disease expert network including the French army health service. They have brought further clarification of diagnostic tests clinical relevance for travelers or autochthonous cases.

#### **CONCLUSIONS:**

This new use of Health Technology Assessment has allowed updating and listing the relevant diagnostic tools which might be crucial to better follow those diseases and it may help the health system to face the increase of tropical infections.

## OP44 Cost-Effectiveness Of Hepatitis C Virus Screening In Swiss Prisons Using Rapid Tests

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#### **INTRODUCTION:**

This study explored the cost-effectiveness of expanding Hepatitis C Virus (HCV) screening and subsequent treatment in Swiss custodial settings, given the availability of rapid antibody saliva tests (Oraquick®) and dried blood spot tests (semi-quantitative viremia and viral genotype), and recent therapeutic advances which have higher cure rates and shorter treatment courses (1).

## **METHODS:**

A comprehensive strategy offering screening to all detainees was compared to the current setup of screening high-risk individuals (for example, from endemic countries, active or former injecting drug users). A decision tree simulated the diagnosis pathway, and results from a Markov model were included to predict treatment effects and natural progression over a lifetime time-horizon. Input data were derived from clinical studies, literature reviews, custodial health services and expert opinion (2). The net monetary benefit (NMB) and incremental cost-effectiveness ratio (ICER) of comprehensive compared to current screening were calculated. Deterministic and probabilistic sensitivity analyses were performed to explore parameter uncertainty and whether variations informed