

The trial aims to recruit 1000 patients in 3 years, of which 500 will enter the health economics study. Currently 125 patients have been entered into the trial. Patients are assessed pre-operatively and then 2 weeks, 3 months, 6 months, 18 months and 3 years post-operatively. Utility scores are obtained using the Euroqol scale. Quality of life is being measured using the EORTC QLQ-C30 and the EORTC QLQ-CR38, a colorectal cancer-specific questionnaire. A questionnaire to assess the use of health resources has been designed specifically for the trial. Detailed technical and theatre costs will be collected in a random sample of 10 patients undergoing each procedure in each centre. Thus, the trial will allow the evaluation of the cost-effectiveness and impact on quality of life in the management of patients with colorectal cancer undergoing laparoscopic surgery, in addition to the routine recurrence and survival data.

Stead ML, Yorkshire Clinical Trials & Research Unit, Leeds, LS 16 6QB, UK

OP27. Anastrozole 1mg provides a cost-effective survival benefit, compared with megestrol acetate, for patients treated for advanced breast cancer

Thompson E¹, Drummond M², Howell A³, Jonat W⁴, Brown J¹
¹Zeneca Pharmaceuticals, Macclesfield, UK; ²Centre for Health Economics, University of York, UK; ³The Christie Hospital, Manchester, UK; ⁴Department of Gynaecology and Obstetrics, University of Kiel, Germany

Background: Advanced breast cancer is an incurable disease. The major aim of treatment is usually palliation of symptoms. In a recent report¹, anastrozole 1 mg (ArimidexTM) (AN) and anastrozole 10 mg daily were compared with megestrol acetate (40 mg qid) (MA) in two randomised, multicentre trials. In the overview analysis of these 2 trials AN has demonstrated a statistically and clinically significant improvement in survival (Hazard Ratio=0.78; p=0.02), compared with MA, in the treatment of postmenopausal women with advanced breast cancer whose disease has progressed following tamoxifen. As AN showed improved survival but is also more expensive than MA, the cost effectiveness of AN has been evaluated using the data collected from these 2 large controlled trials.

Methods: A major difference in treatment costs between AN and MA is the drug received. Both drugs are endocrine treatments and are well tolerated with similar side effect profiles, the exception being weight gain. This is significantly higher on MA, but is assumed to have minimal financial implications. The incremental cost effectiveness ratio (ICER) was defined as the difference in cost of randomised treatment, divided by the difference in survival, to give the cost per additional life year gained. The average duration of treatment and the average survival for each treatment group was estimated using the area under the Kaplan-Meier curve (AUC) for time to treatment withdrawal and time to death respectively. Sensitivity analyses were also carried out including the costs of treatments received after randomised therapy was stopped and varying the drug costs.

Results: 764 patients were recruited into the 2 trials of whom 263 were randomised to AN and 253 were randomised to MA. The average duration of treatment was 12.2 months and 9.0 months for AN and MA respectively. The average survival was 35.4 months on AN compared with 29.1 months on MA. Assuming a daily cost of £2.79 for AN and £0.97 for MA, the ICER is calculated as £1,608 per additional life year gained. Details of the sensitivity analyses around this figure will be presented.

Discussion: The AUCs of treatment withdrawal and survival, for 2 large randomised trials were used to estimate the ICER of AN compared with MA as this was considered the best use of the available data. Patients were estimated to have a 22% lower risk of dying over a given period of time on AN compared to MA and the ICER compared favourably with other established and routinely funded treatments for breast cancer.

1 Buzdar A et al. Proceedings of the American Society of Clinical Oncology 1997; 16:156a Abs 545. Arimidex is a trademark, the property of Zeneca Ltd.

Thompson E, Biostatistics, Medical Research and Communications Group, Zeneca Pharmaceuticals, Alderley Park, Macclesfield, Cheshire, SK10 4TG, UK.

OP28. Evaluation of economic consequences of general prostate cancer screening program in France: A decision model

Thoral F¹, Niddam K^{1,2}, Cuzin C³, Charvet-Protat S¹
¹Agence Nationale pour l'Accréditation et l'Evaluation en Santé, Paris, France; ²Université de Paris I, Panthéon Sorbonne, France; ³Service d'Urologie Hôpital Edouard Herriot, Département d'Information Médicale Hôpital de la Croix Rousse, Lyon, France

Background: Prostate cancer is a growing health problem. But the value of prostate cancer screening remains controversial because many tumours are not destined to lead to mortality. In other hand, it is known that cancer can be cured if detected at an early stage while still confined to the prostate. Early detection using a simple clinical procedure called digital rectal examination (DRE) and a blood test called prostate-specific antigen (PSA) measurement would seem to be a commonsense strategy for reducing the morbidity and mortality from prostate cancer in France. Decision-makers are having to decide whether or not to promote the use of prostate cancer detection technologies in mass screening programs. So the French social security system consequently asked ANAES to evaluate the subject.

Methods: In the absence of randomized trials documenting that early detection of prostate cancer does more good than harm, this analysis uses a quantitative decision model to estimate benefit and costs of an early detection program under different sets of assumptions. The results are expressed as a cost per case of potentially curable prostate cancer detected.

The model considers the use of DRE and PSA as primary screening tests and transrectal ultrasound guided needle biopsy of the prostate (TUNB) as confirmation test. The analysis assumes that TUNB is the "gold standard" for confirming or rejecting suspicious DRE/PSA results.

We estimate the impacts of one-time screening program under some assumptions, and then examine how relaxing the assumptions about screening efficacy changes the results. The model adopts the perspective of the French social security system and considers only direct medical costs.

Moreover we compare a mass screening program with no screening at all in other words screening versus diagnosis.

Results: This study will be ready in summer 1997, and will propose recommendations for decision makers. It offers a quantitative estimate which is adapted to the French situation. Indeed it is not easy to transpose foreign economic evaluation to France. In the meeting the results from our model will be presented.

Discussion: This analysis illustrates the hard policy choices in deciding whether to expend resources for screening before scientific research has definitively established the effectiveness of prostate cancer treatment. The difficulty of current screening prostate cancer is to distinguish between potentially curable prostate cancer and the other cases. Beyond whether or not a prostate cancer screening benefit would result in net costs or savings for The French social security system, one can also consider whether the health benefit realized for each extra dollar spent for prostate cancer screening is more or less than those of screening programs already covered by the social security system.

Thoral F, ANAES, 159 rue Nationale, 75 640 Paris Cedex 13, France