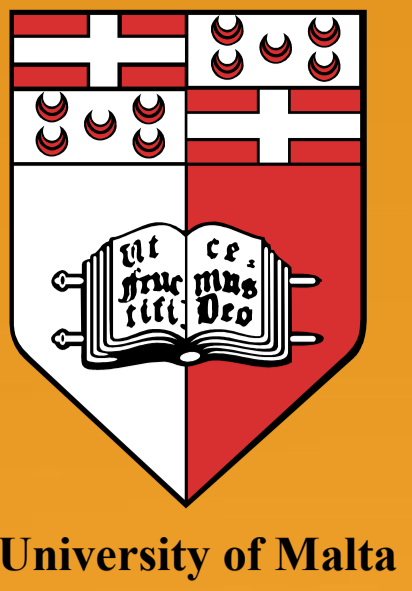


# AN ECONOMIC AND FEASIBILITY TESTING FOR POINT-OF-CARE TESTING FOR TOTAL CHOLESTEROL USING ACCUTREND® PLUS AND MULTICARE-IN®

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## INTRODUCTION

Investment appraisal techniques help to establish whether future gains from an investment will make the initial outlay lucrative.<sup>[1]</sup>

Two investment appraisal techniques were identified for the purpose of this study; the Average Rate of Return (ARR) and the payback method.

## AIMS

- To examine local total cholesterol (TC) point-of-care (PoC) testing;
- To determine consumer demand for TC PoC; and
- To ascertain the most economically feasible device by determining the ARR and payback period for the TC PoC devices available in Malta, namely the Accutrend® Plus and the Multicare-In®.

## METHOD

Two questionnaires directed to pharmacists and patients were designed. The pharmacist questionnaire asked whether pharmacies offer a PoC testing service for TC, the device used, the demand for the service, the price charged by pharmacies and profits generated. The patient questionnaire mainly established how much patients are willing to pay. 117 pharmacist questionnaires were collected (Response Rate: 52%) and 100 patients filled in the patient questionnaire. The cost of the devices, their consumables and the cost of quality control tests were recorded, whilst data regarding gloves,

lancets, alcohol swabs and batteries was gathered from a pharmacy database selecting the cheapest brands. This information together with questionnaire data were used to work out the two investment appraisal techniques chosen.

The ARR for the two devices was calculated using the following formula:<sup>[2]</sup>  $ARR (\%) = [Average Annual Profit / Average Investment] \times 100$ .

The payback period for the two devices was determined. The most economically feasible device would be the one whose initial outlay is recouped first.

## RESULTS

30.77% of the participating pharmacies (n=36/117) offer TC PoC testing. Out of these, 33 pharmacies use the Accutrend® Plus whilst the other 3 use the Multicare-In®. The average price charged per test was €3.67. This price is €0.87 higher than what patients (n=100) are willing to pay (€2.80). The ARR for the Accutrend® Plus was 214.21%, as opposed to -9.19% for the Multicare-In®. The payback period for the Accutrend® Plus was calculated to be 312 days. This implies that initial outlay will be recouped in the first year, signifying that TC PoC testing using this device is very economically feasible. Conversely, the Multicare-In® will not recoup the initial outlay within its lifetime expectancy.

Figure 1  
ARR for Accutrend® Plus and Multicare-In®

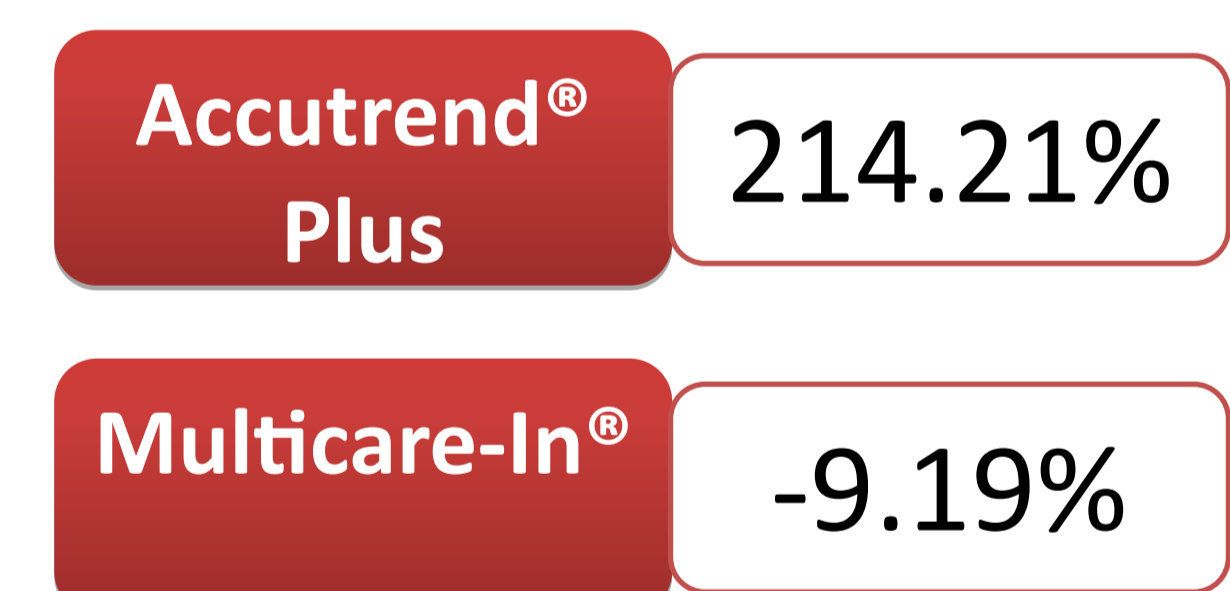
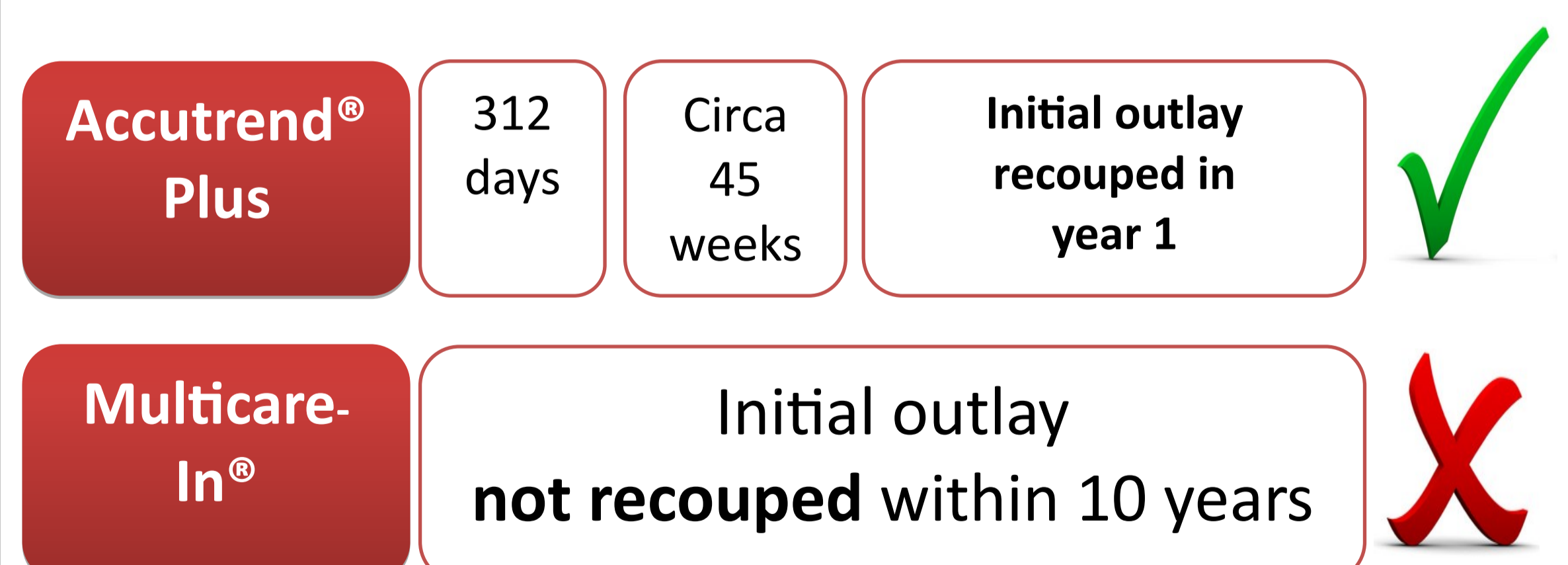


Figure 2  
Payback Period for Accutrend® Plus and Multicare-In®



## CONCLUSION

The choice of the device must take into account both profit maximisation as well as good correlation with the standard laboratory. A comprehensive analysis must be carried out by pharmacists prior to identifying which device to be used when offering PoC testing services.

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