In this article, we analyse the optimal investment decision in a new health care technology of a representative hospital that maximises its surplus in an uncertain environment. The new technology allows the hospital to increase the quality level of the care provided, but the investment is irreversible. The article uses the framework of the real option literature to show how the purchasing rules might influence the level of investment. We show that the investment in new technology is best incentivated within a long-term contract where the number of treatments reimbursed depends on the level of investment made in the period when the technology is new. In this way, asymmetry of information does not affect the outcome of the contract. In our model in fact the purchaser can verify the level of the investment only at the end of each period but the purchasing rule has an anticipating effect on the decision to invest.

EL Classification: I11,D81 Key Words: Health care technologies, Medical quality, Irreversible investments, Real options.