

Abstract

The aim of this bachelor thesis is to propose digitalization of an analog mammographic center, its technical realization in its entirety including implementation, to compare digital and analog mammography and to evaluate its economic costs in a private senological center accredited by the Ministry of Health of the Czech Republic for breast screening.

The economic return is expected to be in 15 000 examinations per year. From the calculations of annual costs and revenues the expected net profit of the mammographic center is 1 497 600 CZK. After 8 years of device-service the profit is 11 980 800 Kč.

The fundamental lack of digital mammography is its price which is in comparison with the analog mammography much higher. This is an obstacle to current centers.

Quality and rapid diagnostics of asymptomatic women with the elimination of false negative findings speak for digitizing the mammographic screening centers.

In the future we can expect an extension of digital mammographs.

Keywords:

digital mammography, analog mammography, digital, mammograph, breast screening, economic return, price, mammography center, senological center