THE ANNUAL COSTS OF PREPARING THE TOP 10 MOST COMMONLY USED INJECTABLE DRUGS AS PREFILLED SYRINGES IN A HOSPITAL PHARMACY

A. Thomsen, Y. Nejatbakhsh, B. Madsen
Aarhus University Hospital, Denmark

Introduction

• The Hospital Pharmacy made a business case investigating the costs/benefits of buying and operating a syringe filler at the pharmacy. The focus was on the production of the top 10 most commonly used injectable drugs for use on the wards.

Purpose

• Estimate the requirements needed in terms of personnel, equipment and production facilities, with regards to capacity.
• Estimate the running costs of production and following EU-GMP rules and regulations concerning production, batch release and stability testing.

Material and methods

Data used to make calculations:
• Baseline data from the wards and expected daily use totals.
• New technology (Filling equipment, syringes)
• Cost/benefit analysis regarding manufacturing products with a longer shelf life
• Knowledge about GMP and production time

This data was used calculate an initial investment cost for the set-up of the equipment, facilities etc. and also to calculate the running costs per annum.

Results

• We have calculated an annual production requirement of 120,000 prefilled syringes using a semi-automated machine for transferring the drugs into syringes. To produce this amount of syringes would normally take one person 9 years of work.
• The initial investment cost amounts to €540,000
• The running cost amounts to €975,000 a year.
• The production cost of a single syringe amounts to €8 excluding drug cost

Conclusion

• Based on the results the hospital board has found the concept very interesting, but they cannot meet the monetary requirement for investment.