Background
Fast dissolving orodispersible films (ODF) provide an alternative formulation for patients with swallowing difficulties. Preparing this films is not yet part of the curriculum in pharmacy school and therefore it has to be learned for yourself.

Objectives
ODF were produced using different techniques, both a manual and an automated method. After preparation we wanted to clarify, if it was possible to prepare some films with these methods. If it’s possible to incorporate an active ingredient. And what characteristics the films have.

Materials and methods
Different solutions were created. All of them contained hydroxypropylcellulose, glycerol, water and – for quantitative analysis – Propranolol hydrochloride (P-HCl). The films were manufactured using two different methods, both a manual and an automated method.

Results
Results are shown in the table on the right.

All ODF were dried for three days by room temperature and analysed for
1) Their thickness with a micrometer screw (Erichsen Model 497, s. picture 1)
2) Dissolving rates. Therefore the ODFs were exposed every 30 seconds to a drop of purified water.
3) The content of P-HCl via UV/Vis spectroscopy.

Conclusion
Both methods led to suitable films. All films showed short dissolution rates and even active ingredients had been inserted during manufacturing process. The automated method led to thinner films and therefore to less active ingredient per cm². To receive a dose of 5mg P-HCl about 15 cm² has to be taken orally. Nevertheless the manual method is an easy method to implement without specialized equipment.