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## Introduction

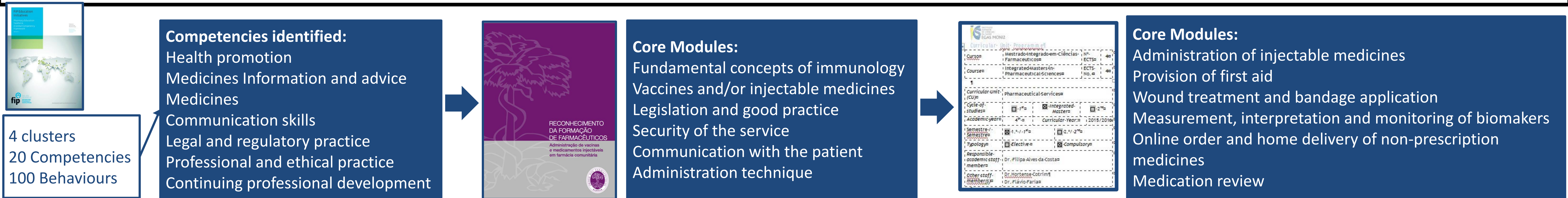
The publication of the Decree 1429/2007<sup>[1]</sup> introducing new pharmacy services has made the Integrated Masters of Pharmaceutical Sciences (IMPS) curricula unfit to the new demands of the pharmacist profession. Informal interviews conducted with practitioners confirmed the gap of recent graduates from all faculties to provide enhanced services.

## Aims

To describe the contents identified by the Portuguese Pharmaceutical Society (PPS) as core competencies and to demonstrate how these were incorporated into the new curricula.

## Methods

The global competency framework (GbCF) of FIP<sup>[2,3]</sup>, considered by the PPS and currently being validated for general practice and specialisations, was used as mapping tool to identify core competencies expected from pharmacy students who will engage in advanced services – unit **Administration of Injectable Medicines**.



## Results

This curricular unit is mainly practical, where contact hours are divided between 6 core competencies.



Figure 1. Competency 1 - Administration of injectable medicines (16 hours). Intramuscular and subcutaneous routes



Figure 2. Competency 2- Provision of first aid (6 hours)



Figure 3. Competency 3 - Wound treatment and bandage application (4 hours)



Figure 4. Competency 4 - Measurement, interpretation and monitoring of biomarkers (4 hours)

16-year old female emails the pharmacy requesting immediate home-delivery of Levonorgestrel. The student is expected to contact the patient requesting additional information. If requested: She lives in the same village, takes regularly Etinilestradiol + Gestodeno (0.015 mg + 0.06 mg), intercourse 8 hours ago, did not use condom, during this cycle she forgot a white pill, which she took the following day.

Figure 5. Competency 5 – Case of online order and home delivery of non-prescription medicines (1 hour)

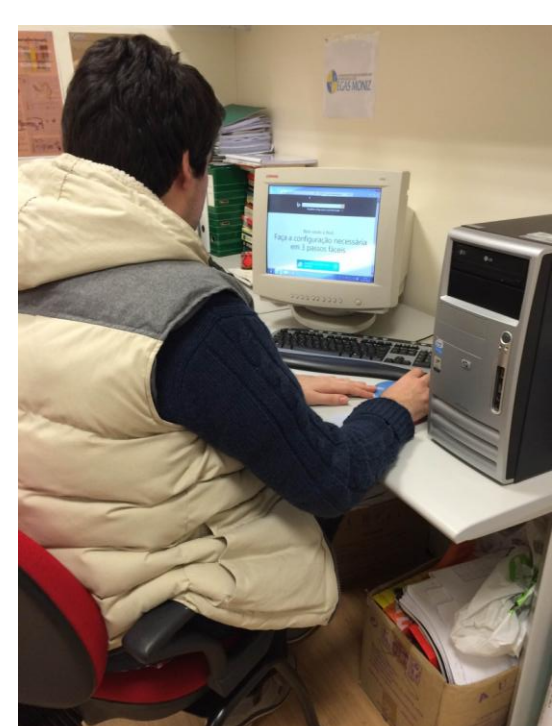


Figure 6 Competency 6 – Medication review [MR] (8 hours)

Faculty-based practices are complemented with observational practices made available by community pharmacies, health centres and nursing facilities.

Competence acquisition is evaluated using Objective Structured Assessment of Technical Skills (OSATS) during the semester, and using Objective Structured Clinical Examination (OSCE) at the end of the semester. Competence sustainability is reassessed, using OSATS, 6 months later. The latter is optional for graduation purposes, but compulsory for PPS accreditation.

## Discussion and Conclusions

The impact of this curricula change will only be possible to assess within 2 years, once these students are already in practice. The unit was also submitted to the PPS and it is being evaluated to confirm if further training is required to gained this approved competency in Portugal.

## References

1. Portaria 1429/2007 published in Diário da República N.º 211 de 2 de novembro de 2007, Série I, p. 7993
2. Bruno A., Bates I., Brock T. And Anderson C. Towards a Global Competency Framework. Am J Pharm Educ 2010;74(3):56.
3. International Pharmaceutical Federation (FIP). *Global Competency Framework (GbCF v1) for Services Provided by Pharmacy Workforce*. The Hague: International Pharmaceutical Federation; 2012.