IMPLEMENTATION OF A MULTIDISCIPLINARY PERSONALISED MEDICINE UNIT FOR PHARMACOGENETIC TESTING

Fernández-Fradejas J[1], Morín-Rodríguez M[2], Delgado-Silveira E[1], Moreno-Pelayo MÁ[2], Álvarez-Díaz AM[1]

[1] Pharmacy Department. Hospital Universitario Ramón y Cajal. Instituto Ramón y Cajal de Investigación Sanitaria (IRYCIS)

[2] Genetics Department. Hospital Universitario Ramón y Cajal. Instituto Ramón y Cajal de Investigación Sanitaria (IRYCIS)

What was done?

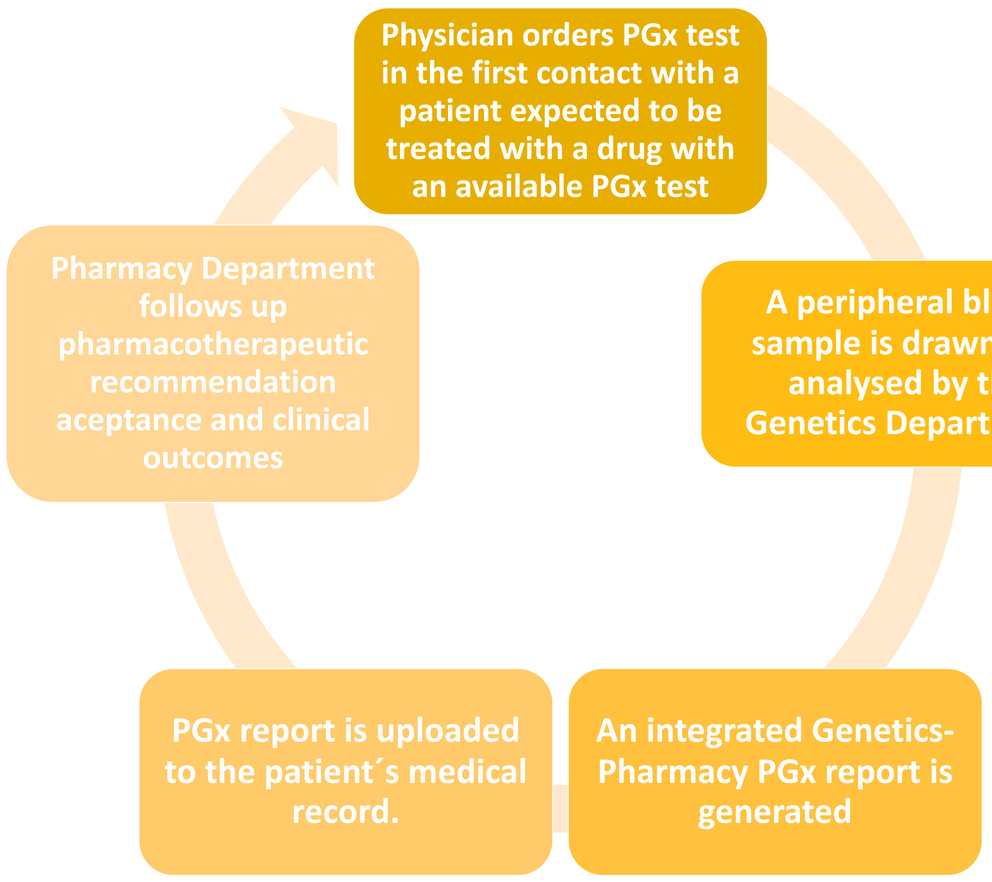
We have implemented a multidisciplinary Personalised Medicine Unit (PMU) at a third level hospital to facilitate preemptive pharmacogenetic (PGx) testing.

Why was it done?

- There is an increasing number of gene-drug interactions with the potential to predict patient response to drugs.
- Although the study of genetic variants can be useful to achieve a safer and more effective pharmacotherapy, integration of personalised medicine in clinical practice has been challenging, mainly due to prescriber´s scepticism and lack of clinical guidelines.

How was it done?

The PMU provides its service with the involvement of Pharmacy and Genetics Department.



PGx report contains:

- Molecular information and its interpretation.
- Clinical pharmacotherapeutic recommendation according to the results obtained.

Dose adjustment recommendations follow CPIC and DPWG guidelines.

What has been achieved?

- Three hundred and seventy patients have benefited from PGx testing.
- Mean turnaround time <10 days preventing treatment delays.
- Pharmacotherapeutic recommendations had an acceptance rate of 100%.

Whe have implemented seven gene-drug interactions

November 2021
DPYD – capecitabine, 5-fluorouracile, tegafur

July 2021
CYP2C9 - siponimod

April 2022
UGT1A1 – irinotecan, liposomal irinotecan, sacituzumab

What next?

Our next challenges are:

- Introducing next-generation sequencing for the study of new gene-drug interactions in the unit portfolio.
- Achieve a deeper integration of PGx information and clinical-decision support systems.

CPS12265
jffradejas@salud.madrid.org
@j_ffradejas