

Workshop 1

To start an evidence based PGx service

on:


- starters with antidepressants;
- children with epilepsy
- patients with treatment after acute coronary syndrom

to more effective and safe drug use in individual patients

Gene-drug combinations investigated up to 1-2-2019 (97x)

<ul style="list-style-type: none"> Methylphenidate <p>COMT</p>	<ul style="list-style-type: none"> Clozapine Olanzapine <p>CYP1A2</p>	<ul style="list-style-type: none"> Efavirenz <p>CYP2B6</p>	<ul style="list-style-type: none"> Citalopram Clopidogrel Escitalopram Esomeprazole Fluvoxamine Imipramine Lansoprazole Mirtazapine Moclobemide Omeprazole Pantoprazole Prasugrel Rabeprazole Sertraline Ticagrelor Verzoxanole <p>CYP2C9</p>	<ul style="list-style-type: none"> Acenocoumarol Glibenclamide Gliclazide Glimepiride Phenprocoumon Phenytoin Tolbutamide Warfarin <p>CYP2C19</p>	<ul style="list-style-type: none"> Amiodarone Amitriptyline Aripiprazole Atenolol Acosuaratine Bisoprolol Carvedilol Citalopram Clamipramine Clonidine Clotapine Codaine Disopyramide Doxepine Duloxetine Eliglustat Escitalopram Flecainide Fluoxetine Flupentivol Fluphenazine Fluvoxamine Gefitinib Haloperidol Levamisole
<ul style="list-style-type: none"> Quetiapine <p>CYP3A4</p>	<ul style="list-style-type: none"> Tacrolimus <p>CYP3A5</p>	<ul style="list-style-type: none"> 5-Fluorouracil Capecitabine Tegafur <p>DPYD</p>	<ul style="list-style-type: none"> Estrogen contraceptive agent <p>Factor V</p>	<ul style="list-style-type: none"> Allopurinol Ab Ca Fl Rit <p>HLA-A</p>	
<ul style="list-style-type: none"> Methotrexate <p>MTHFR</p>	<ul style="list-style-type: none"> Atorvastatin Fluvastatin Simvastatin <p>SLCO1B1</p>	<ul style="list-style-type: none"> 6-Mercaptopurine Azathiopurine Tioguanine <p>TPMT</p>	<ul style="list-style-type: none"> Minotocan <p>UGT1A1</p>		

U-PGx Consortium


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Strategy

Collaborative work (pharmacists, medical doctors, ICT specialists) / national or international (EU)

Use existing infra structure of Prepare

Make it person centered

Chose the approach (gene panel, number of genes, drugs) ;

select relevant drug-gene interactions that matter in our population

Use existing guidelines and experience, and decide whether other guidelines are necessary

Follow the medical research framework: pilot based on evidence, trial

Start up in one hospital as a scientific project together with genetic experts there, expand to pharmacogenes (easier to deal with legislations)

First steps

Set up the project team / study protocol

Get funding

Set up a network with laboratories

Evidence based protocol for pharmacists: steps how to implement PGx (select patients, take swabs etc)

Implement guidelines in clinical decision support systems of healthcare providers

Involve patients: inform on added value, what it means, how to use PGx, ask for their needs

Develop easy to read information for patients and healthcare professionals

interprofessional education for broader implementation

Limitations

Funding

Evidence: clinical evidence on efficacy, cost effectiveness

Regulation

Public fear for ethic issues

Role of pharmacists within professional network ('resistance')

Data management (within pharmacy / exchange with others)

Good patient communication

Tips from 23 participants from 9 countries

Propose evidence based pharmacy service to physicians to help them with medication of their patients

Results may be needed; help them with things they cannot do

Show pharmacy services to patients: what we can do for them

PGx could be one aspect in this

Make a good choice in a relevant drug-gene interaction