The Italian primary care experience

From inappropriate prescribing to deprescribing

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#deRx2018

Learning Objectives

- To introduce the foundation of the Italian Healthcare System
- To describe a quality improvement initiative to reduce inappropriate medication prescribing for the elderly
- To present a quality improvement multi-disciplinary approach to increase awareness of and promote deprescribing

Italian Health Care System

- Italian National Health Service
  - Similar to the UK system
- Coverage is universal
  - Italian constitution guarantees right to health care
- Financing
  - Specialty physicians – salaried employees of the National Health Service
  - Primary care physicians - capitated
  - Hospitals – DRG type financing system
- Regions (20)
  - responsible for providing health care to residents

Regione Emilia Romagna

- Population ~4.4 million
- 7 Local Health Authorities (LHAs)
  - Parma LHA (~450K)

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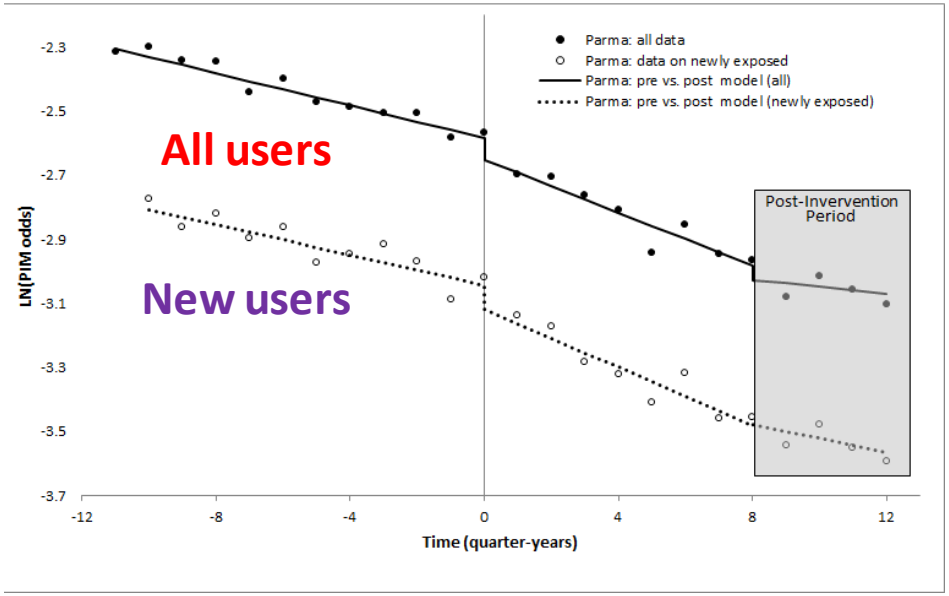
Inappropriate Medication Prescribing Project in the LHA of Parma (2007-2010)

- A physician-focused, multi-factorial, quality improvement intervention to reduce potentially inappropriate medication prescribing for the elderly
  - Involved all primary care physicians (PCPs) (approx. 300) taking care of a population of circa 370,000 individuals, of which circa 100,000 elderly
  - 3 key elements:
    - Dissemination of a developed list of inappropriate medications (*Maio Criteria*), along with a list of alternatives drugs
    - Annual review of incidence data of inappropriate prescribing
    - Educational sessions on inappropriate prescribing via academic detailing and case study reviews

Maio V et al. Using explicit criteria to evaluate the quality of prescribing in elderly Italian outpatients: a cohort study. J Clin Pharm Ther. 2010;35(2):219–29

Impact of the Intervention

- The quality improvement initiative appeared to have positively impacted physicians' awareness and prescribing behavior
  - A statistically significant reduction in inappropriate medication exposure in elderly people



Keith SW et al. A physician-focused intervention to reduce inappropriate medications prescribing to older people *Drugs and Aging* 2013;30:119–127;

Lopatto J et al. Evaluating Sustained Quality Improvements: Long-term Effectiveness of a Physician Focused Intervention to Reduce Potentially Inappropriate Medication Prescribing in an Older Population *Journal of Clinical Pharmacy and Therapeutics* 2014, 39, 266–271

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2017 Maio Criteria

Potentially Inappropriate Medications for the elderly

Always avoided	Rarely appropriate	Some indications	Always avoided Not reimbursed
Therapeutic Class or Organ System			
Analgesics	***Antidepressants***	***Antiplatelets***	***Propulsives***
Pentazocine	SSRIs	Prasugrel	Metoclopramide (orale)
	Fluoxetine		
Antiplatelets	Fluvoxamine	***Antiarrhythmics***	***Antibacterials***
Ticlopidine	Paroxetine	Amiodarone, Dronedarone, Flecainide, Propafanone, Sotalol	Nitrofurantoin
Antiarrhythmics	***Acid related disorders drugs***	***Antidepressants***	***Antihistamines***
Quinidine	Proton Pump Inhibitors >360 days	*SSRIs*: Sertraline	Cyproheptadine
Dihydro		*SNRIs*: Duloxetine, Venlafaxine	Chlorpheniramine
Disopyramide	***Respiratory system***		Diphenhydramine
	Theophylline	***Antidiabetics***	Hydroxyzine
Antidiabetics		*Sulfonylureas*	
Sulfonylureas		Gliclazide, Glimepiride, Glipizide, Gliquidone	***Benzodiazepines, medium-long half-life***
Glibenclamide		*Glucagon-like peptide-1 (GLP-1) analogues*	Clorazepate
Meglitinide		*Sodium-glucose co-transporter 2 (SGLT2) inhibitors*	Chlordiazepoxide
Repaglinide		*Dipeptidyl peptidase 4 (DPP4) inhibitors*	Delorazepam
		Thiazolidinediones	Diazepam
Antiinfiammatory drugs			Flurazepam
NSAISs >15 days		***Atypical antipsychotics***	Flunitrazepam
Indometacine		Aripripazole, Clozapine, Olanzapine, Paliperidone, Quetiapine, Risperidone, Ziprasidone	Meprobamate
Ketorolac (injectable)			Prazepam
≤ 2 days			
Antiparkinson agents		***Conventional antipsychotics***	***Benzodiazepines, short-medium half-life at ceratin dosage***
Orphenadrine		Haloperidol, Amisulpride, Chlorpromazine, Clotiapine, Fluphenazine, Perphenazine, Pimozide, Promazine, Sulpiride, Thioridazine, Triflupromazine	Alprazolam >2 mg/day
			Lorazepam >3 mg/day
Cardiovascular system			Oxazepam >60 mg/day
Clonidine (oral)		***Acid related disorders drugs***	Temazepam >15 mg/day
Methyldopa		Proton Pump Inhibitors at max dosage for >8 weeks	Triazolam >0.25 mg/day
Nifedipine (short acting)			
Spironolactone >25mg/day		***Cardiovascular system***	***Hypnotics***
		Clonidine (patch), Digoxin, Diltiazem, Doxazosin, Ivabradine, Verapamil	Zolpidem >5mg/day
Endocrine system			Zopiclone >3.75mg/day
Estrogen (oral)			
Testosterone			***Laxatives, Stimulant***
			Laxatives, Bulk-producing
Central nervous system			
Amitriptyline			***Psychostimulants***
Citalopram >20mg/day			Piracetam
Clomipramine			
Escitalopram >10mg/day			***Natural substances***
Imipramine			Ginkgo biloba
Nortriptyline			
Trimipramine			

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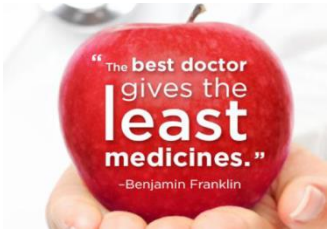
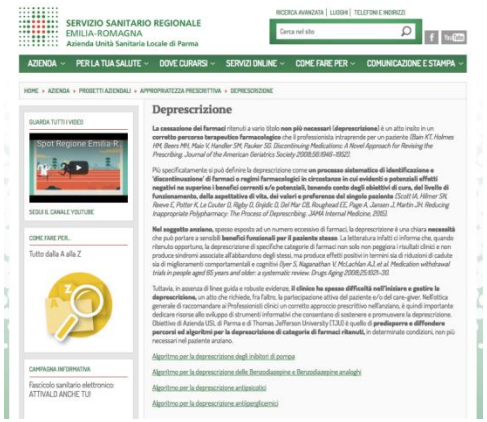
Deprescribing (DeRx) Project (2016 – on)

- Involves all PCPs
- Is a quality improvement initiative embedded in the contractual agreement between the LHA and PCPs
- Uses an Italian translated version of the DeRx deprescribing.org tools for PPIs, antipsychotics, antihyperglicemics, and BZRAs
  - Material available on a dedicated website





PPIs=Proton Pump Inhibitors
BZRAs=Benzodiazepine receptor agonists & Z-drugs

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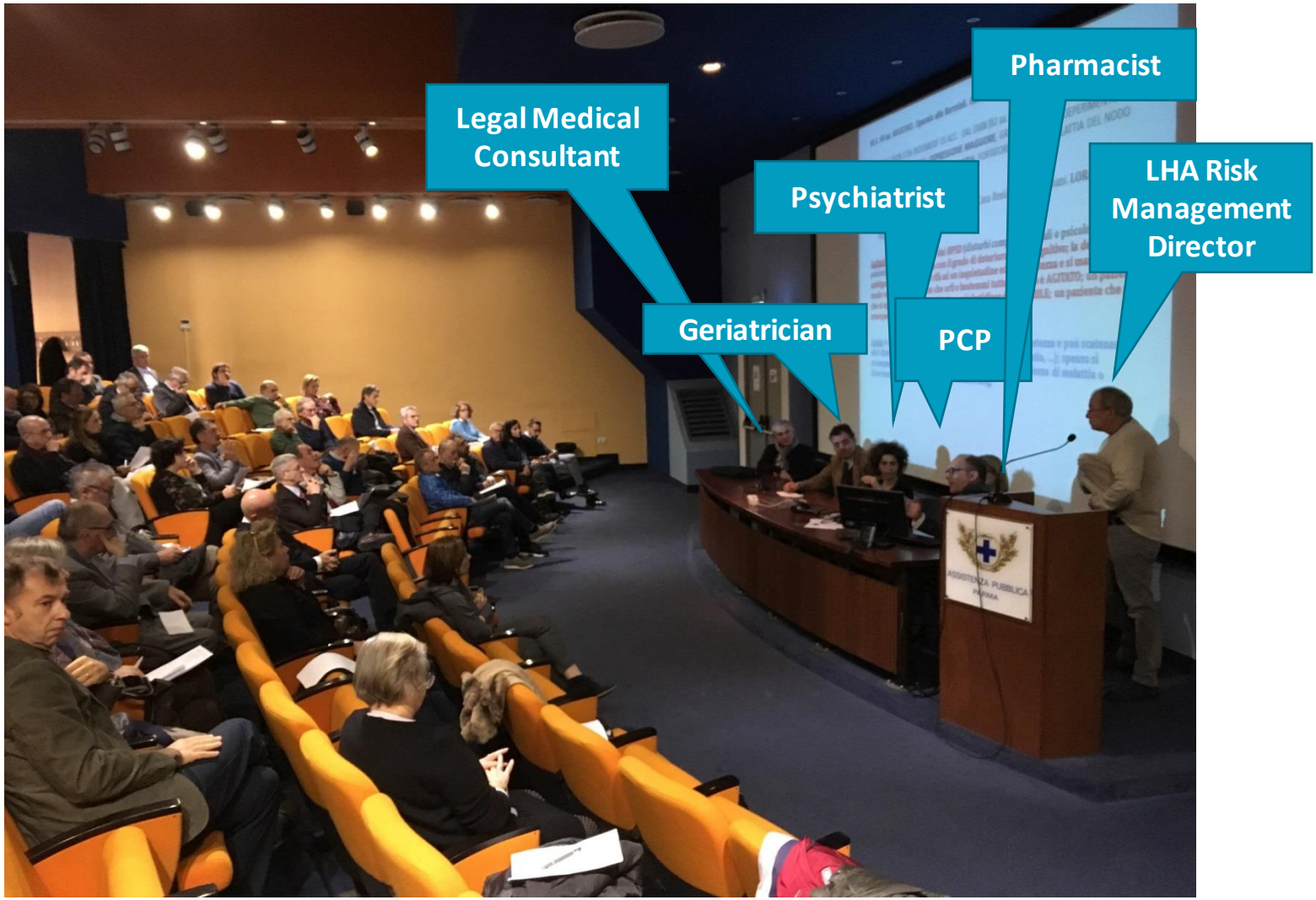
DeRx educational format

- Peer-to-peer educational group sessions for PCPs
  - Group size: 25-100
- Multidisciplinary approach including many LHA professionals such as hospital clinicians, specialists, legal medical consultants, pharmacists, and nurses
- Focusing on a single drug class:
  - Review of the therapeutic properties
  - Appropriate/inappropriate drug use
  - DeRx: when and how to utilize the DeRx tool as a framework to engage patients discontinuing their medications
  - Case studies
  - Discussion
  - Distribution of educational material
  - Program evaluation survey

Antipsychotic DeRx presentation (November 2016) - Case study discussion



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Were the DeRx educational sessions successful?

- High PCP participation (about 70%)
- Intense discussions
- Very positive feedback

Antipsychotic DeRx algorithm presentation

"Important topic in the daily clinical practice of a PCP. The educational program provided us with very important practical clinical recommendations"

PPI DeRx algorithm presentation

"The educational program gave me the rational for deprescribing"

"Very useful info for daily clinical activities"

Antihyperglycemic DeRx algorithm presentation

"Very useful practical suggestions and holistic vision!"

"Very much appreciated the multi-disciplinary approach"

"I valued the focus on glycemic targets as I am thinking to approach more antidiabetic drug discontinuation in my patients"

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Challenges

- Administered survey to PCPs on DeRx perception
  - PCPs feel confident in DeRx but some…
    - Are not comfortable with discontinuing guideline recommended therapies
    - Believe there is lack of evidence about DeRx
    - Fear of withdrawal side effects
    - Are not willing to discontinue drugs prescribed by other physicians (e.g., specialists, hospital clinicians)
    - Are not comfortable to engage patients/caregivers in DeRx if they feel medications are needed
- During educational session discussions, PCPs expressed fear of being sued for malpractice should an adverse event occur after DeRx

Singer D et all. *How Confident Are Primary Care Physician in Deprescribing for the Elderly and What Barriers Prevent Deprescribing?* American Managed Care Pharmacy Nexus 2016, National Harbor, MD, USA, October 3-6, 2016

What's next

- Conduct PCP focus groups to better understand their beliefs in and willingness to DeRx
- Introduce the BZRAs DeRx algorithm to PCPs
- Present and disseminate DeRx tools in hospital settings
- Conduct a pilot prospective feasibility project aimed at discontinuing PPI in selected patients of PCPs using the PPI DeRx algorithm
- Assess the impact of the DeRx activity

Final thoughts…

- We are in need of:
  - Robust research on DeRx feasibility and effectiveness
  - DeRx algorithms for other drug classes (e.g., antihypertensive drugs, corticosteroids, antidepressants, statins)
  - Better understanding on how to engage physicians in DeRx
    - Educational format (e.g., academic detailing)
    - Educational material
    - Incentives

Grazie! Thanks!

The DeRx group:

Parma Local Health Authority

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