

Farmaci e delirium: un rapporto complesso

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**63° Congresso Nazionale
SIGG**

Gli Anziani:

Le radici da preservare

DISCLOSURES

NADIREX INTERNATIONAL

PFIZER

EDRA ED.

EDISES ED.

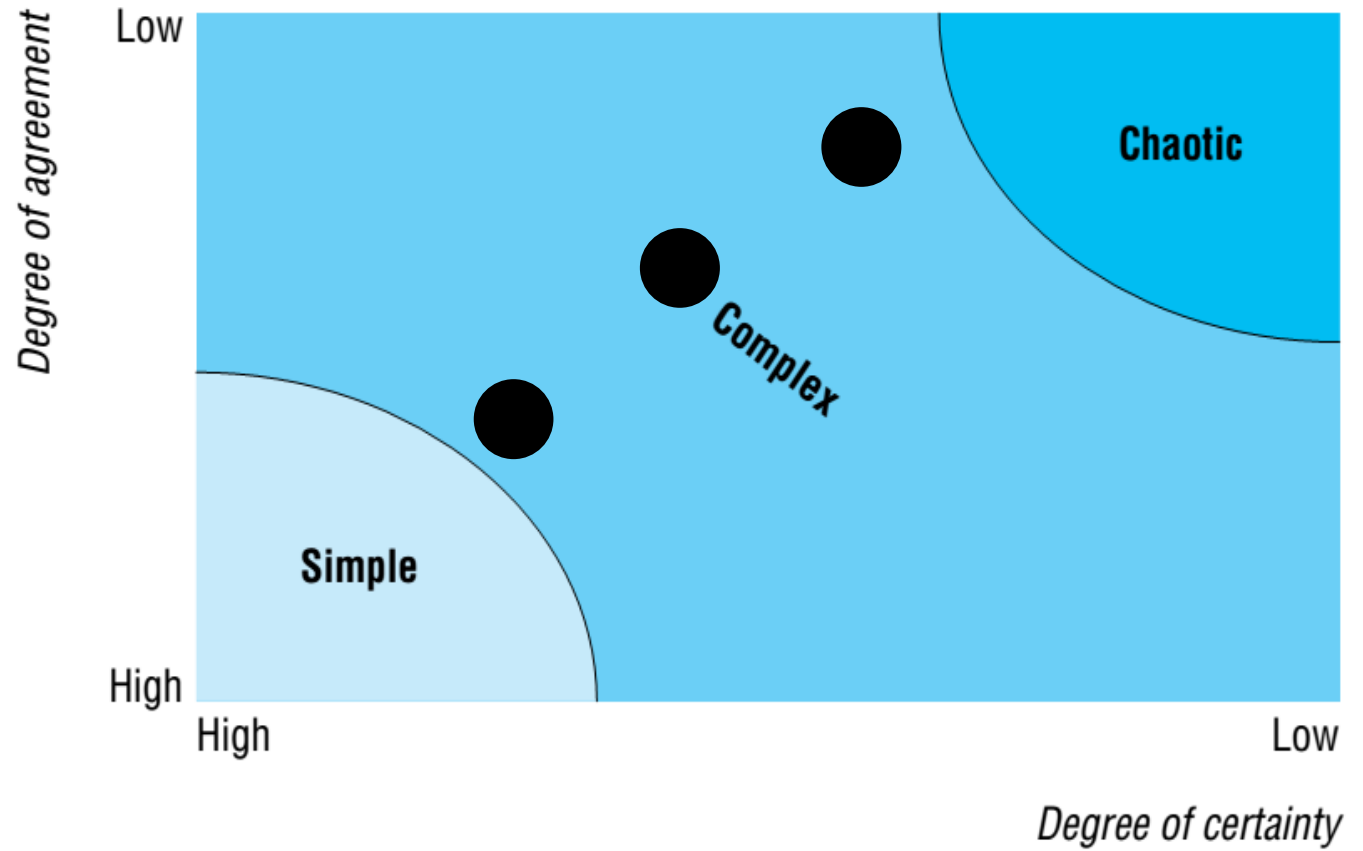
UVET GPT SPA





The challenge of complexity in health care

Plsek and Greenhalgh, BMJ 2001





1. Prevention and treatment

Dopamine

Serotonine

Melatonine



Typical Antipsychotics

Atypical Antipsychotics

Melatonine/-agonists

Trigger, prevent and treat?

Prevent?

Widely used, not convincing, maybe harmful

Not used, not convincing, but safe

Noradrenaline

Acetylcholine

GABA



Alpha2-receptor-agonists

Cholinesterase-inhibitors

Benzodiazepines

Prevent and treat?

Trigger, prevent and treat?

Promising, but expensive and IV only

Not convincing, maybe harmful



Perspective A:
**Predict the response to
treatment**



One-size-fits-all treatment?

Maybe not, especially given that the treatment could be unsafe

Predict the response to treatment (PRECISION MEDICINE)

**1 (+) DRUG INTERACTS WITH OTHER GERIATRIC SYNDROMES IN
PREVENTING/TREATING DELIRIUM?**

Frailty

Sarcopenia

Mobility

Function

Multimorbidity patterns

.....

The existence of meaningful
subgroups

The ability to identify them



Perspective B:
EARLY TREATMENT OF DELIRIUM

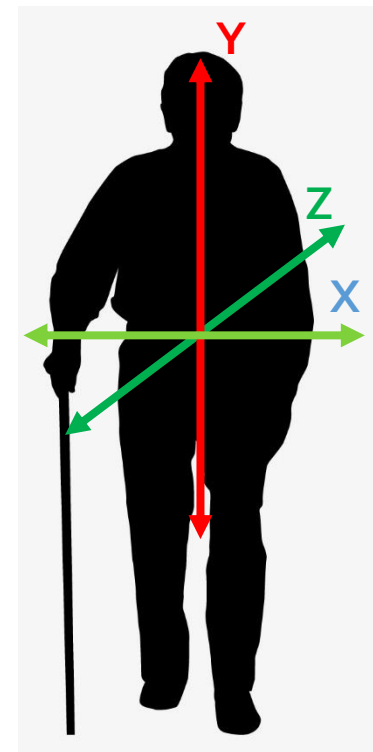
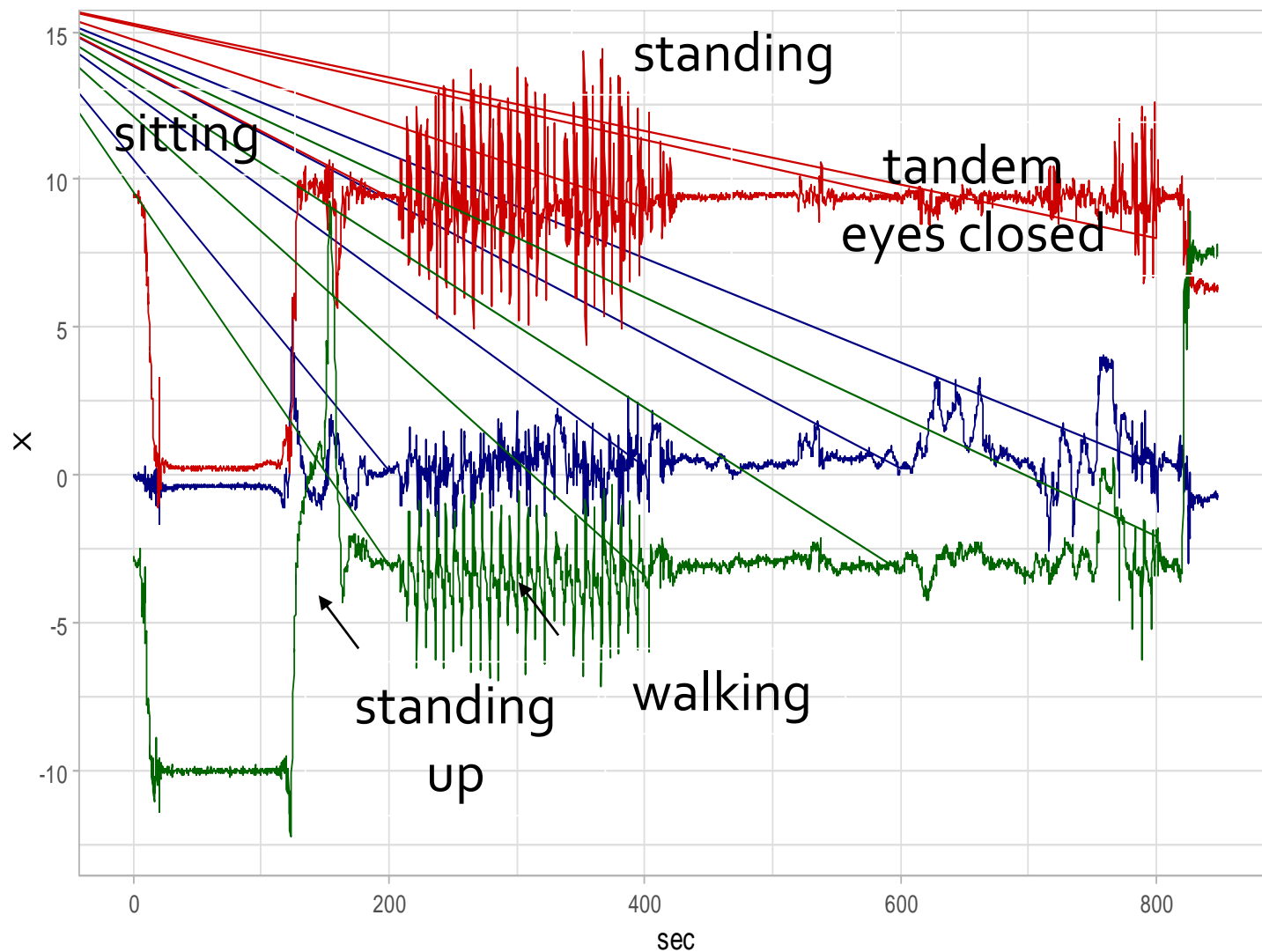
Biomarkers

3 major groups of delirium related serum biomarkers:

- ① risk markers: those that are present or elevated prior to disease onset;
- ② disease markers: those markers elevate with delirium onset and fall when delirium recovery, including acetylcholine and serum anticholinergic activity, serotonin, serum amino acids, and melatonin, interleukin, C-reactive protein;
- ③ end products: those that rise in proportion to the consequences of disease, including S-100 β and neuron specific enolase.



Instrumental evaluation of motor activity in hospitalized older persons: an aid to early identification of delirium? A study proposal





2. Triggering

1 (+) DRUG TRIGGERS DELIRIUM

Specific clusters of drugs

Drug-drug interactions

Inappropriate drugs

Anticholinergic load (how much, for how long?)





Perspective A
Rigorous data collection



RECORD-PE

***The reporting of studies
conducted using
observational routinely
collected health data
statement for
pharmacoepidemiology
(RECORD-PE)***

BMJ 2018; 363 doi:k3532

Real-world Evidence and Real-world Data

Jama 2018;320

FDA: Can real-world evidence be used for new indications of approved drugs ,risks/ benefits?

Applying randomization to the real world



FDA financed study on replication of findings of 30 RCTs on drug efficacy in observational studies

Minimize confounding and Increase external validity





Perspective B

ICT



**Community based telepsychiatry service for
older adults residing in a rural and remote
region- utilization pattern and satisfaction
among stakeholders**

BMC Psychiatry. 2018 Sep 27;18(1):316