

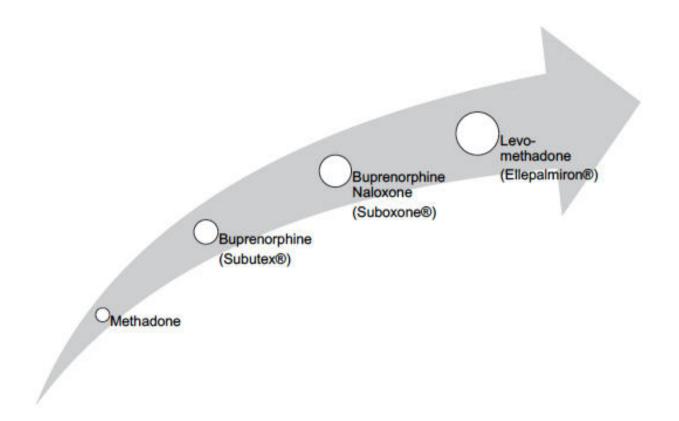
#### Cosa può cambiare nella farmacoterapia agonista con le nuove formulazioni



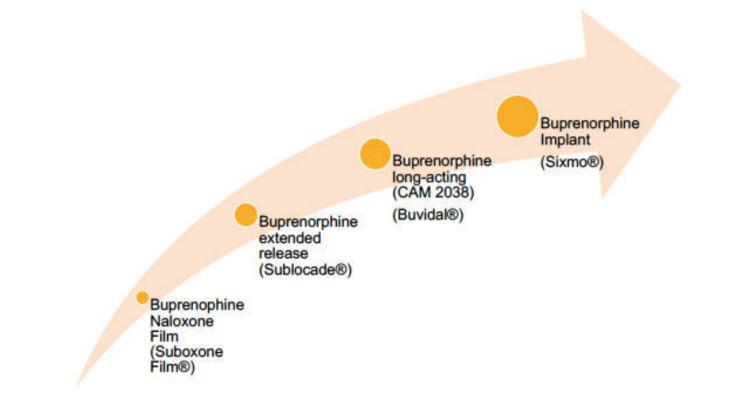
Treatment	Dosage range	Consideration	
Buprenorphine Implant (26 mm in length and 2.5 mm in diameter)	74.2 mg (equivalent to 80 mg of buprenorphine hydrochloride)	Maintenance treatment of opioid addiction that provides non- fluctuating blood levels of buprenorphine around the clock for a period of six months following a single treatment procedure	
Buprenorphine extended- release formulation (SQ)	80-300 mg/monthly injection	Two formulation available FDA approved in 2016 and 2017	
Buprenorphine long-acting (SQ) (CAM2038)	8-32 mg (one weekly q1w) 64-160 mg (once-monthly q4w)	Maintenance treatment of opioid addiction, intended for administration one weekly (q1w) and once monthly monthly (q4w)	
Buprenorphine and naloxone sublingual film	2 mg/0.5mg – 12 mg/3 mg	Maintenance treatment of opioid addiction	
Levo-methadone	1:2 vs. methadone typical range	Maintenance treatment of opioid addiction	

Modified by Kreek et al., Sci. Adv. 2019; 5











Drugs	Active ingredients	Administration	Average dosage/target range	Half-life
Revia <sup>®</sup> , Depade <sup>®</sup>	Naltrexone	Oral (tablet)	50 mg, I×/day	I3 hours⁴⁵
Vivitrol <sup>®</sup> XR	Naltrexone	IM	380 mg, I×/month	5–10 days <sup>59</sup>
Methadose <sup>®</sup> , Diskets <sup>®</sup> ,	Methadone HCI	Oral (dispersible	2:1 (parental-to-oral ratio),	8–59 hours⁰
Dolophine <sup>®</sup>		tablet in liquid), IM	80–120 mg oral <sup>60</sup>	
Xtampza® ER	Oxycodone HCl	Oral (capsule)	9–36 mg, 2×/day <sup>62</sup>	5.6 hours <sup>63</sup>
Narcan®	Naloxone HCl	Nasal spray	4 mg, I spray <sup>33</sup>	0.5–1.35 hours <sup>64</sup>
Suboxone®	Buprenorphine/naloxone	Oral (SL) tablet, buccal (film)	4/1 mg, 8/2 mg, 12/3 mg <sup>62</sup>	24–42 hours/2–12 hours <sup>65</sup>
Bunavail®	Buprenorphine/naloxone	Buccal (film)	2.1/0.3 mg, 4.2/0.7 mg, 6.3/1 mg <sup>66</sup>	16.4–27.5 hours/1.9–2.4 hours <sup>67</sup>
Zubsolv®	Buprenorphine/naloxone	Oral (SL) tablet	Two 5.7 mg/1.4 mg tablets 1×/day (11.4 mg/2.8 mg) <sup>68</sup>	24–48 hours/2–12 hours <sup>65</sup>
Probuphine <sup>®</sup>	Buprenorphine HCI	Subdermal implant	Four implants deliver equivalent to daily doses <8 mg suboxone <sup>55</sup>	24–48 hours <sup>55</sup>

**Table I** Comparison of commonly available products to treat opioid dependence

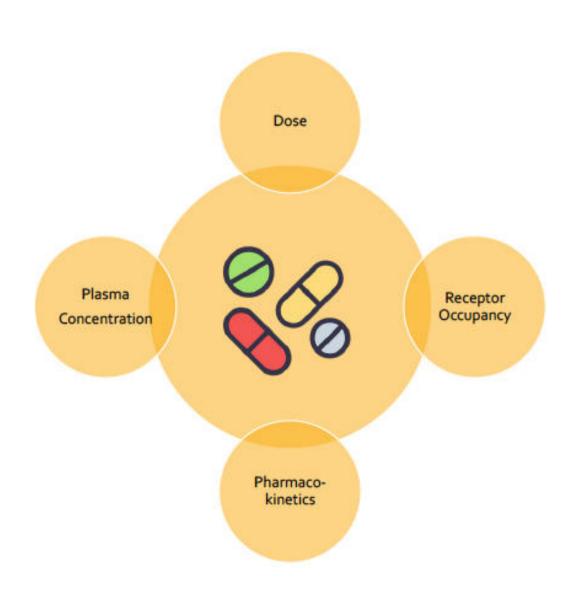
Abbreviations: IM, intramuscular; IV, intravenous; SL, sublingual.

Itzoe, Guarnieri, 2017, Drug Design Development and Therapy, 11: 1429-1437









#### What OST should do?

- Abstinence management
- Relapse prevention
- Craving control
- Improve functioning

#### What OST should not do?

- Barrier for relationship
- Obstacle for recovery
- Stigma

## The main limits of OST

- Adherence
- Misuse and diversion
- Pharmacological interactions
- Overdose

#### The match paradigm

- Identify the patient
- Match the treatment

### The match paradigm: the limits on the patient's side

- The patient could change
- The assessment may be not complete
- The assessment could be wrong
- The patient might disagree

#### The match paradigm: the limits on the drug's side

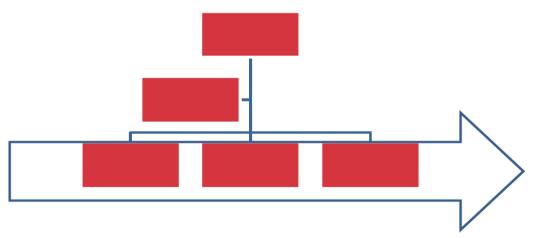
- The drug is unmatched
- The drug is underdosed
- The drug cannot managed by clinician

The organization should not preserve the "internal order" that can be a "barrier" for client's need....



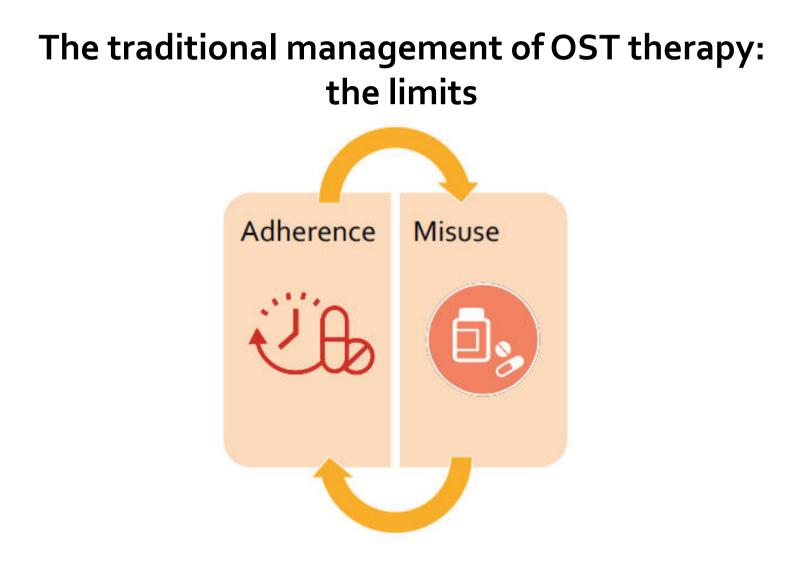
The organization is vertical while the client's service is horizontal

George Fisher former Motorola CEO

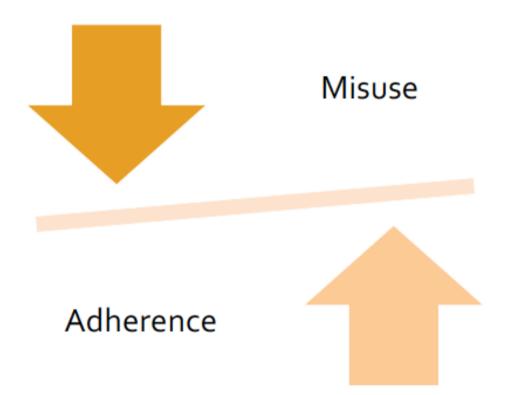


#### The traditional management of OST therapy

- Induction
- Stabilization
- Monitoring
- Follow-up



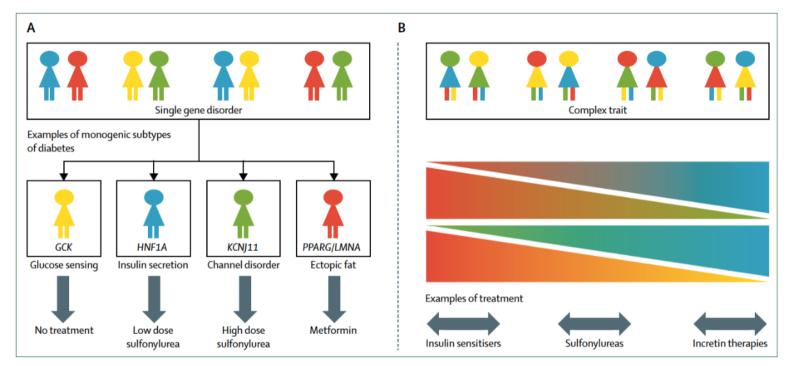




# The traditional management of OST therapy is lean?

- Time
- Distribution
- Access
- Cost
- Drop-out
- Mistake

#### The precision therapy: concerns



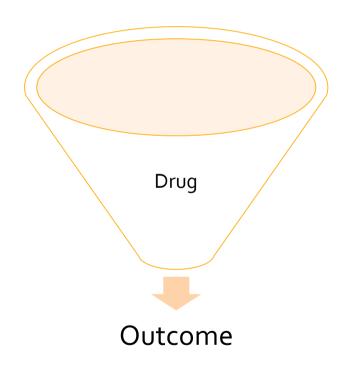
#### Figure: Precision medicine approaches for the treatment of type 2 diabetes

(A) Treatment of patients with selected monogenic subtypes of diabetes. (B) Individuals with complex genetic determinants of type 2 diabetes. Monogenic diabetes subtypes have specific treatments whereas complex trait type 2 diabetes is a sliding scale making individualised treatment more difficult. Many subtypes of monogenic diabetes can be treated with specific pharmcological agents, whereas individuals with type 2 diabetes have a heterogeneous phenotype, with different degrees of abnormalities in multiple pathways.

Gloyn, Drucker, 2018; Lancet, S2213-8587(18), 30052-54

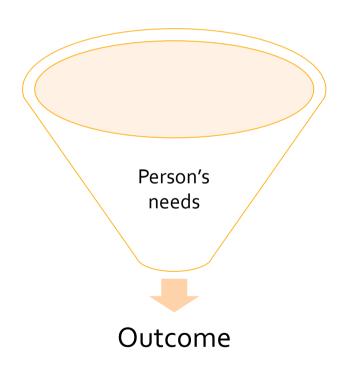


# The old paradigm





#### The new paradigm













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