Share Your Top Tip!

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Palliative Care: What's Changing, What's Not, and What We're Hearing from Patients

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#1: Give them What They Want

What Do Dying Patients Want?

Truth

Touch

Time

Kuhl et al., 2010

Conversation flow		Patient-tested language
1. Set up the conversation • Introduce purpose • Ask permission	Set Up	*"I'd like to talk about what is ahead with your illness and do some thinking in advance about what is important to you so that I can make sure we provide you with the care you want — **is this okay?**"*
2. Assess illness understanding & information preferences	Assess	*"What is your **understanding** now of where you are with your illness?"* *"How much **information** about what is likely to be ahead with your illness would you like from me?"*
3. Share prognosis • Frame with a "wish...worry", "hope...worry" statement • Allow silence, explore emotion	Share	Prognosis: *"I want to share with you **my understanding** of where things are with your illness..."* Uncertain: *"It can be difficult to predict what will happen with your illness. I **hope** you will continue to live well for a long time but I'm **worried** that you could get sick quickly, and I think it is important to prepare for that possibility."* Time: *"I **wish** we were not in this situation, but I'm **worried** that time may be short as_ (express as a range e.g. weeks to months, months to a year)."* **OR** Function: *"I **hope** that this is not the case, but I'm **worried** that this may be as strong as you will feel"*
4. Explore key topics • Goals • Fears & worries • Sources of strength • Critical abilities • Trade-offs • Family	Explore	*"What are your most important **goals** if your health situation worsens?"* *"What are your biggest **fears and worries** about the future with your health?"* *"What gives you **strength** as you think about the future with your illness?"* *"What **abilities** are so critical to your life that you can't imagine living without them?"* *"If you become sicker, **how much are you willing to go through** for the possibility of gaining more time?" "How much does your **family** know about your priorities and wishes?"*
5. Close the conversation • Summarize what you've heard • Make a recommendation; check in with patient • Affirm your commitment to the patient	Close	*"I've heard you say that ____is really important to you. Keeping that in mind, and what we know about your illness, I **recommend** that we _____. This will help us make sure that your treatment plan reflect what's important to you"* *"How does this plan seem to you?" "I will do everything I can to help you through this."*
6. Document your conversation & 7. Communicate with key clinicians		

http://www.bccancer.bc.ca/new-patients-site/Documents/SeriousIllnessConversationGuideCard.pdf

Touch

Aging & Mental Health

Routledge
Taylor & Francis Group

ISSN: 1360-7863 (Print) 1364-6915 (Online) Journal homepage: www.tandfonline.com/journals/camh20

Touch, the essence of caring for people with end-stage dementia: A mental health perspective in Namaste Care

Daniel Nicholls, Esther Chang, Amanda Johnson & Michel Edenborough

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DOI: 10.1111/ppc.12801

ORIGINAL ARTICLE

Perspectives in PSYCHIATRIC CARE WILEY

The effects of therapeutic touch on spiritual care and sleep quality in patients receiving palliative care

Kevser S. Ünal Aslan PhD[1] | Funda Çetinkaya PhD[2]

Time

- Skilled Communication about Timelines
- Time for Reflection and Decision Making
- Timely access to care and symptom management
- Time to work on unresolved issues or legacy work

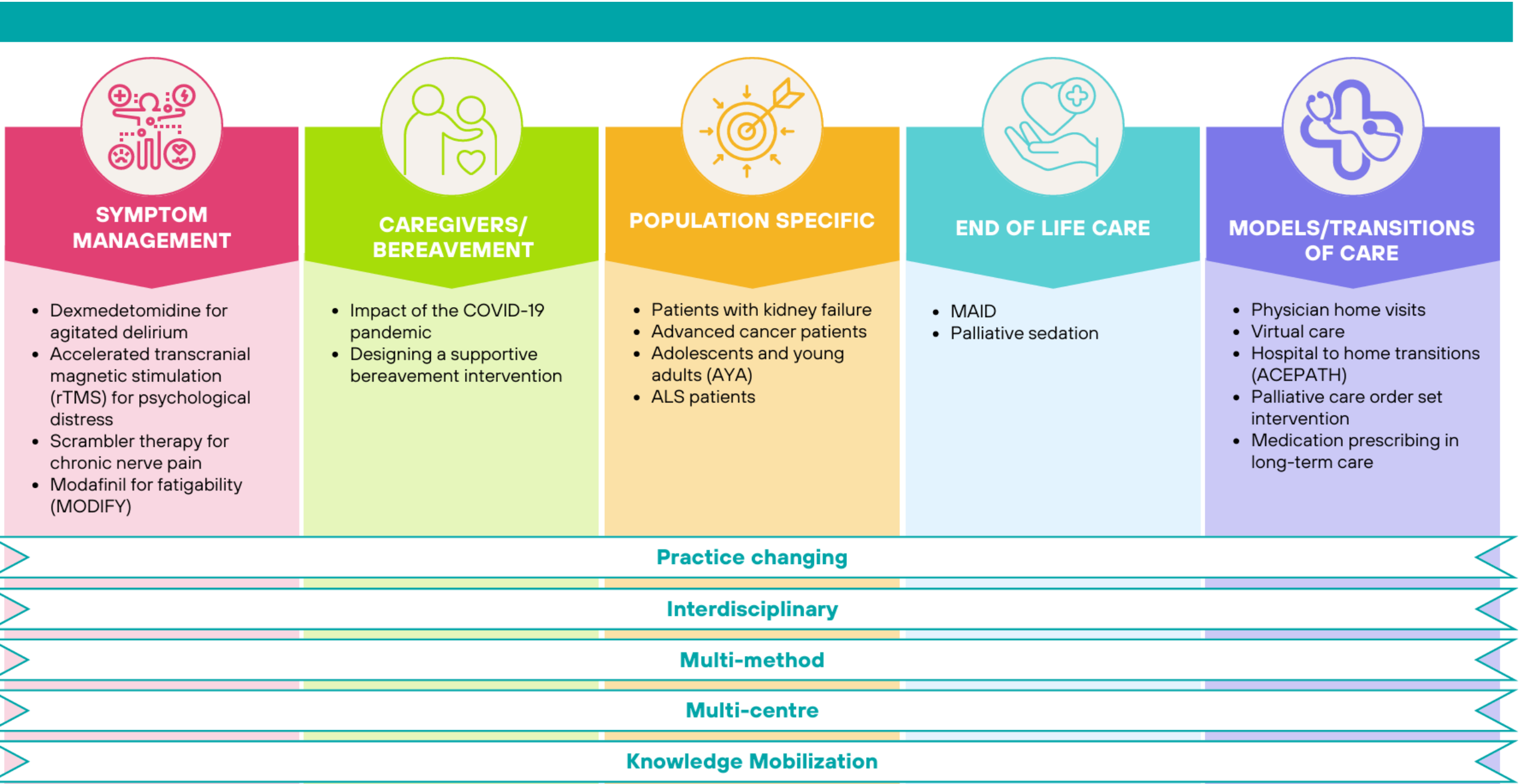
Image Credit: onedaydreams.ca

#2 Always Be Curious

Studies in region- what’s up and coming

Image from "Island of Listeners" The Storytelling Project — Isenberg Lab

Draft Pillars Framework University of Ottawa, Division of Palliative Care
Thanks to Maya Albert and Dr. Christine Watt



#3: Think Outside the Box

When it's Not Quite Time for Injectable Meds

- Patients living alone
- Earlier in the trajectory
- Concerns about rapid decline and wait for arrival of health care providers
- Refusal to have injectables in the home
- Caregiver unable to manage injectable medications

Oral SRK

- Hydromorphone elixir 1mg/ml, PRN for dyspnea and/or pain. M: 10mL ** please dispense with a 1(one)mL syringe
- Olanzapine 5mg oral dissolving tablet, PRN for nausea and/or agitation M: 5 tabs
- Lorazepam 0.5mg SL tabs, PRN for anxiety and/or seizure M: 5 tabs
- Atropine 1% ophthalmic drops, PRN for oral secretions M: 1 bottle
- Acetaminophen 325mg suppository, PRN for fever M: 12 supps, 1 box
- Bisacodyl 10mg suppository, PRN for constipation M: 6 supps, 1 box

Drugs useful in palliative care that can be administered rectally

Opioid analgesics	Corticosteroids	NSAIDs	Anxiolytics	Laxatives	Anti-emetics	Anti-epileptics
Morphine*	Hydrocortisone	Acetaminophen*	Diazepam*	Glycerin*	Prochlorperazine*	Phenobarbital
Hydromorphone*	Prednisolone	Diclofenac	Lorazepam	Sodium phosphates*	Promethazine*	Pentobarbital
Methadone	Dexamethasone	Indomethacin*	Midazolam	Mineral oil*	Chlorpromazine	Phenytoin
Oxycodone		Ibuprofen	Clonazepam	Bisacodyl*	Metoclopramide	Carbamazepine
Codeine		Naproxen		Docusate*	Ondansetron	Valproic acid
Tramadol		Aspirin				Lamotrigine

NSAIDs: nonsteroidal antiinflammatory drugs.

* Commercially available as a suppository or enema in the United States.

Graphic 87317 Version 6.0

Uptodate.com

#4 Learn from Your Patients

Lessons Learned from the Neuro-palliative patients

ASK (I know, this is obvious!)

- What matters?
- What gives life meaning?
- What makes you happy to wake up in the morning?

These things dramatically influence the decisions people make and learning can help you frame discussions

Everyone's neuro disease is their own

While there may be a small number of common diagnoses

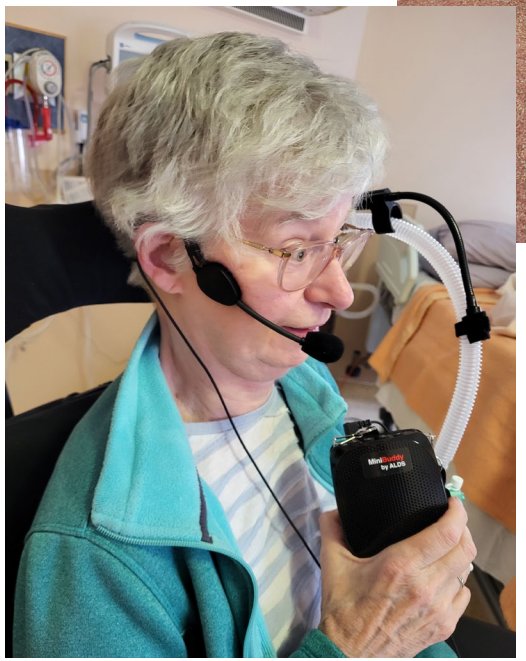
- ALS
- PSA
- MSA
- Parkinson's
- MS
- Dementia

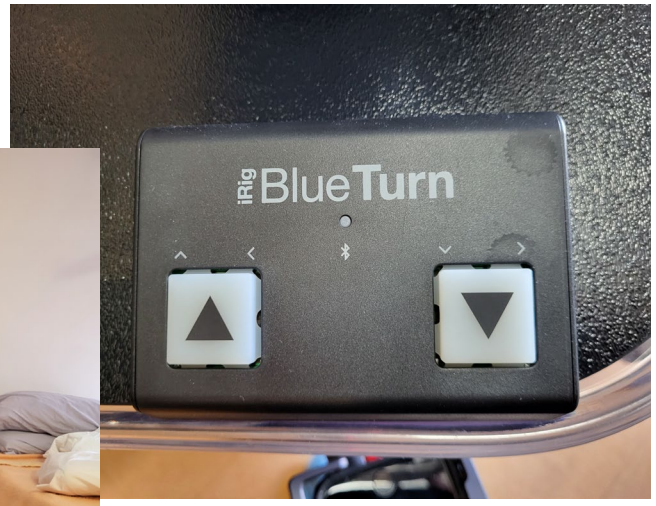
EVERY PERSON HAS THEIR OWN VERSION and TRAJECTORY

Creativity is Key

- Start from the problem and brainstorm
  - Communication devices
    - Modified keyboards, styluses, or paper tools
    - Voice to text or text to voice
    - Eye gaze
    - Portable doorbells—head, foot
  - If can communicate may be able to keep some independence
    - Adjust lights
    - Adjust electronics/TV
    - Connect with others
  - Reframe "aids" as TOOLS

CrEatIvITy Is KeY





Position matters:

???

We think about positioning with regards to skin but what about "bodily functions"

- When men can't stand to void what can we do to help? (looking for ideas on this one)
- Raised toilet seats; help getting on/off toilet or commode but for some people impair ability to defecate
  - If so, consider a stool for feet (may need assistance, beware of hips)
- Consider positioning in bed: on side, knees up if possible
- Bedpans can be a challenge...

#5: Make Sure You've Got Them Covered

The Price of Palliative Care

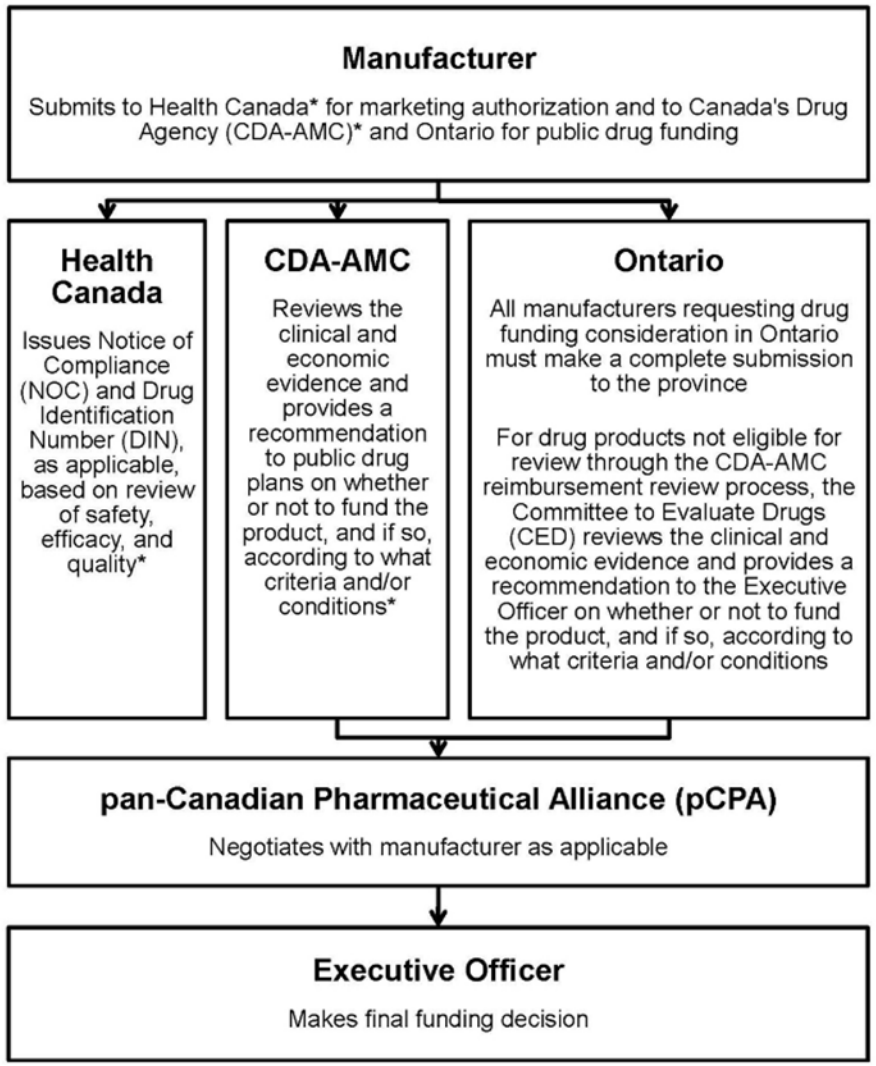
- Direct Costs
  - Transportation
  - Food & Medication
  - Equipment
- Indirect Costs
  - Lost Wages
  - Childcare
  - Housing

The Cost of Caregiving

- **96%**
- Percent of people receiving homecare who have an unpaid caregiver
- **$76.7%**
- Estimated out-of-pocket expenses paid by caregivers for Palliative Home Care (transportation, medications, travel)
- **$700-$2402**
- Average Estimated monthly forgone wages for Canadian caregivers of patients with Cancer
- **$1.4Bbillion**
- Estimated total out-of-pocket costs paid for by caregivers of people with dementia in Canada in 2016 (Canadian Institute for Healthcare Information, 2025)

Marani &Peckham, 2023

Drug Review and Funding Process



*Submissions to, and reviews by, Health Canada and CDA-AMC may happen concurrently

https://www.ontario.ca/page/drug-funding-review-and-approval-process

SADIE (Special Authorization Digital Information Exchange)

Real time EAP decisions (approvals and rejections) and online tracking of EAP submissions

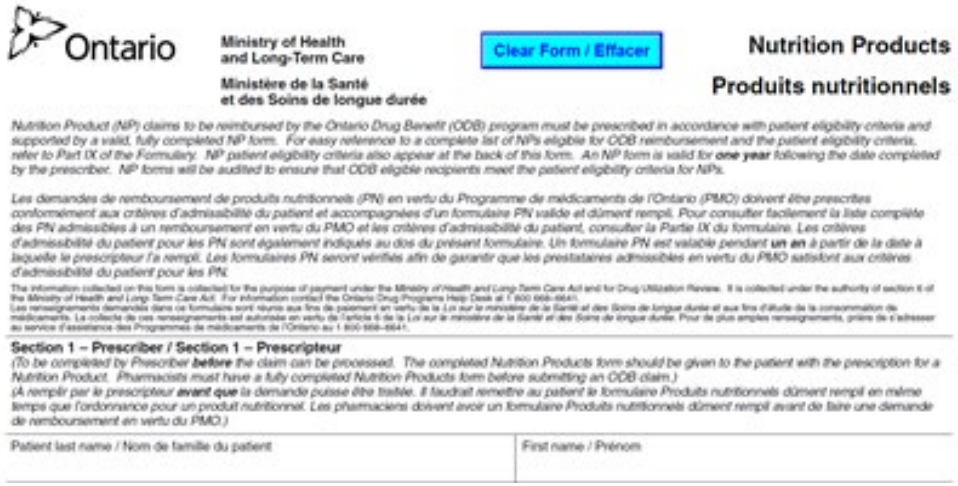
- up to 50% faster decision time
- prescribers receive EAP decisions, both approvals and rejections, for many drug requests within seconds of submitting the EAP request in SADIE
- up to 75% fewer requests for missing information
- patient demographic information is auto-populated when you enter a valid Ontario health card number
- online tracking and access to historical EAP submissions and Ministry of Health responses
- requests are automatically classified as initial or renewal and SADIE will ask you the questions tailored to the request type
- easily accessible criteria information
- criteria-driven "smart forms" that ask only the questions needed for your request
- delegates can create and submit EAP requests, and designates can assist in creating submissions
- requested additional information can be submitted
- a negative decision can be appealed
- self-manage practice locations and self-delete delegate and designate SADIE profiles

https://www.ontario.ca/page/sadie-special-authorization-digital-information-exchange

Updates to Medication Coverage

- Ondansetron- New Palliative Limited Use Code
  - LU 696 (for tx of emesis in patients receiving palliative care who are refractory to, intoleratnt to, or have a contraindication to at least two other anti-emetics
- Tranexamic Acid: Added to SADIE for auto-approval when applying for currently approved indications (e.g. epistaxis)
- Fentanyl 12 mcg patch: Now Covered under the general benefit
- Morphine 1mg/mL oral Liquid (Doloral)
  - Manufacturer has been approached twice, most recently in April 2024
  - No interest in participating

Nutritional Supplement Coverage



Ontario

Ministry of Health and Long-Term Care

Ministère de la Santé et des Soins de longue durée

Clear Form / Effacer

Nutrition Products

Produits nutritionnels

*Nutrition Product (NP) claims to be reimbursed by the Ontario Drug Benefit (ODB) program must be prescribed in accordance with patient eligibility criteria and supported by a valid, fully completed NP form. For easy reference to a complete list of NPs eligible for ODB reimbursement and the patient eligibility criteria, refer to Part IX of the Formulary. NP patient eligibility criteria also appear at the back of this form. An NP form is valid for **one year** following the date completed by the prescriber. NP forms will be audited to ensure that ODB eligible recipients meet the patient eligibility criteria for NPs.*

*Les demandes de remboursement de produits nutritionnels (PN) en vertu du Programme de médicaments de l'Ontario (PMO) doivent être prescrites conformément aux critères d'admissibilité du patient et accompagnées d'un formulaire PN valide et dûment rempli. Pour consulter facilement la liste complète des PN admissibles à un remboursement en vertu du PMO et les critères d'admissibilité du patient, consulter la Partie IX du formulaire. Les critères d'admissibilité du patient pour les PN sont également indiqués au dos du présent formulaire. Un formulaire PN est valable pendant **un an** à partir de la date à laquelle le prescripteur l'a rempli. Les formulaires PN seront vérifiés afin de garantir que les prestataires admissibles en vertu du PMO satisfont aux critères d'admissibilité du patient pour les PN.*

The information collected on this form is collected for the purpose of payment under the Ministry of Health and Long-Term Care Act and for Drug Utilization Review. It is collected under the authority of section 6 of the Ministry of Health and Long-Term Care Act. For information contact the Ontario Drug Programs Help Desk at 1 800 668-6641.

Les renseignements demandés dans ce formulaire sont réunis aux fins de paiement en vertu de la Loi sur le ministère de la Santé et des Soins de longue durée et aux fins d'étude de la consommation de médicaments. La collecte de ces renseignements est autorisée en vertu de l'article 6 de la Loi sur le ministère de la Santé et des Soins de longue durée. Pour de plus amples renseignements, prière de s'adresser au service d'assistance des Programmes de médicaments de l'Ontario au 1 800 668-6641.

Section 1 – Prescriber / Section 1 – Prescripteur

*(To be completed by Prescriber **before** the claim can be processed. The completed Nutrition Products form should be given to the patient with the prescription for a Nutrition Product. Pharmacists must have a fully completed Nutrition Products form before submitting an ODB claim.)*

*(À remplir par le prescripteur **avant que** la demande puisse être traitée. Il faudrait remettre au patient le formulaire Produits nutritionnels dûment rempli en même temps que l'ordonnance pour un produit nutritionnel. Les pharmaciens doivent avoir un formulaire Produits nutritionnels dûment rempli avant de faire une demande de remboursement en vertu du PMO.)*

Patient last name / Nom de famille du patient	First name / Prénom

Nutrition Products Form
https://forms.mgcs.gov.on.ca/dataset/014-3057-87

Oropharyngeal or GI disorder resulting in dysfunction/dysphagia where eating is prevented (e.g. head and neck cancers)

Maldigestion/Malabsorption disorder (e.g. pancreatic insufficiency, short gut syndome)

Specific condition where supplementation has demonstrated benefit (e.g. Crohn's)

#6 Read the Signs

The Palliative Performance Scale (PPSv2)

	Palliative Performance Scale (PPS)					
	PPS level %	Ambulation	Activity & Evidence of Disease	Self-Care	Intake	Conscious Level
Stable	100	Full	Normal activity & work No evidence of disease	Full	Normal	Full
	90	Full	Normal activity & work Some evidence of disease	Full	Normal	Full
	80	Full	Normal activity with effort Some evidence of disease	Full	Normal or Reduced	Full
	70	Reduced	Unable normal job/work Significant disease	Full	Normal or Reduced	Full
Transitional	60	Reduced	Unable hobby/house work Significant disease	Occasional Assistance	Normal or Reduced	Full or Confusion
	50	Mainly Sit/Lie	Unable to do any work Extensive disease	Considerable Assistance	Normal or Reduced	Full or Confusion
	40	Mainly in Bed	Unable to do most activity Extensive disease	Mainly Assistance	Normal or Reduced	Full or Drowsy +/- Confusion
EOL	30	Totally Bed Bound	Unable to do any activity Extensive disease	Total Care	Normal or Reduced	Full or Drowsy +/- Confusion
	20	As Above	Unable to do any activity Extensive disease	Total Care	Minimal sips	Full or Drowsy +/- Confusion
	10	As Above	Unable to do any activity Extensive disease	Total Care	Mouth care only	Drowsy or Coma +/- Confusion

Using the PPS to Prognosticate

PPS 30% Median 13 days survival

PPS 20% Median 4 days survival

PPS 10% Median 1 day survival

Reminder ** PPS as a prognostic indicator has only been well studied in advanced cancer populations**

Downing et al., 2007

Other Potential Prognostic Indicators

- Highly Sensitive, Likely predictors of <72 hours life expectancy (advanced cancer population)
  - Pulselessness of radial artery
  - Mandibular movement when breathing
  - Urine output <100mL in 24 hours
  - Cheyne-Stokes, Audible Secretions
  - Non-reactive pupils
  - Decreased response to verbal/visual stimuli
  - Drooping of naso-labial fold
  - Inability to close eyelids
  - Upper GI bleeding
  - Hyperextension neck
  - Grunting of vocal cords

Hui et al., 2015

What About Sudden Death

- Estimated to occur in 5-10% of patients admitted to Hospice or Palliative Care Units (Hui, 2015)
- Prospective study in Austrailia suggested increased risk for sudden death with (Prevalence of 4% in the study population):
  - Lung cancer
  - Male
  - Younger Age
  - Worse Fatigue
  - Worse Breathlessness

Ekstrom et al., 2016

#7 Mouth Care is Not Just for End of Life

Mr. Hal I. Tosis

Hal has ALS.

- He presented a year ago with weakness in his left arm, initially noting that he could not lift things onto kitchen shelves.
- Initially felt a “pinched nerve” but when note his left leg also felt week sought attention and ALS diagnosed by EMG.
- His disease has now progressed and he can no longer grip a pen with his left hand and struggles to raise his right arm. He can still type (slowly).
- He is still able to walk short distances.

His wife takes you aside and mentions he now often has bad breath

Mrs. D. Gia

- Mrs. Gia had a stroke 3 months ago.
- She still has some speech and swallowing problems but can make herself understood and is eating modified textures. She also has some residual right sided weakness.
- She prides herself in having regained much of her independence and provides her own self care except (reluctantly) accepts help with showers.
- Family help with activities like shopping, cooking and housework.

She had an episode of aspiration pneumonia and she and family are concerned. Are there ways they can reduce the risk

Why does it matter:

1. Oral health can help reduce the risk of pneumonia, particularly those with swallowing issues
2. Gum disease may increase risk for heart attack and stroke (illnesses like diabetes increase the risk)
3. Dental issues can lower self-esteem and impact social interaction
4. Associated with lower quality of life

Khadka, S et al Poor oral hygiene, oral microorganisms and aspiration pneumonia risk in older people in residential aged care: a systematic review. Age and Ageing 2021; 50: 81–87 doi: 10.1093/ageing/afaa102. Published electronically 17 July 2020

Oral health for seniors - Canada.ca

ASK and EXAMINE

Xerostomia in the Geriatric Patient: Causes, Oral Manifestations, and Treatment | Compendium of Continuing Education in Dentistry

Are there any mouth/teeth issues?

Are they having trouble brushing (or spitting)?

- People may be embarrassed to admit need help
- Can be uncomfortable (physically and/or emotionally) to have help

Can they still get to the dentist/hygienist?

- mobility
- transportation
- cost https://www.canada.ca/en/services/benefits/dental/dental-care-plan.html

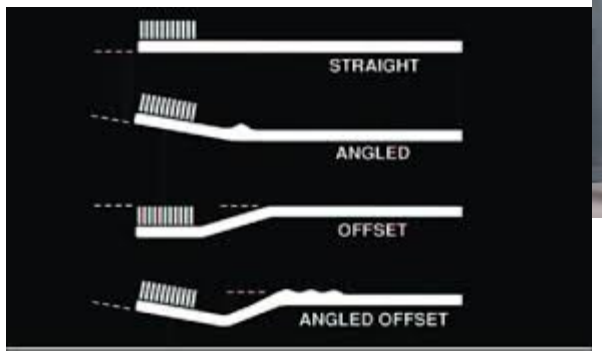
Examine the mouth

Adobe stock images

Tool tips-give people choices

- Sponges don't clean well, limit use unless at end of life
- Use a soft toothbrush
- An electric toothbrush can be helpful (but can be heavier) if dexterity is an issue. A double-sided toothbrush can also help.
- There are many modified toothbrushes/handles
- If spitting and swallowing are an issue, consider a suction toothbrush
- If dentures (full or partial) remove and clean and clean/massage gums (cloth or soft toothbrush).
- Don't forget flossing—help as well as tools may be needed

Tools: Need to customize. Consult as needed



#8 Bake The World a Better Place

Xerostomia (Dry Mouth) with Halitosis (Bad Breath)

Sodium Bicarbonate 5mL

Saline Solution 25mL

Cepacol (or other alcohol-free mouthwash) 25mL

Hydrogen Peroxide 15mL

Saline Solution 80mL

Artificial Saliva (20mL)

Cepacol (or other alcohol-free mouthwash) 10mL

Mouth Ulcers with Infection

Tetracycline 250mg capsules

Dissolve 1 capsule in 180mL water

Dose: Rinse mouth with 15mL of solution for 3 mins QID x 3-5days (gargle then spit or swallow)

Nystatin Popsicle

Nystatin 100 000 units/mL solution: 96mL

Distilled Water: 270mL

Makes 18, 15mL popsicles (500 000 units/popsicle)

Stability: 2 months in Freezer

Stomatitis or Ulceration

- Sucralfate 12g
- Sterile Water 60mL
- Antacid (e.g. Maalox) 60 mL

Yakima Fruit Paste (aka Senna Jam)

Serving Suggestion

1-2 tablespoons per day

Ingredients

1lb pitted prunes

1lb figs

4oz senna tea leaves

1 cup brown sugar (optional)

1 cup lemon juice

Prepare senna tea, steep for 5 mins

Strain tea to remove leaves

Pour tea into cooking pot. Add prunes, raisins and figs

Boil for 5 mins, or until soft

Remove from heat. Add sugar and lemon. Allow to cool

Pour into blender, mix into a paste

Place mixture in freezer friendly container (will not harden). Freeze and take out small quantities to use at a time

https://patient-education.seattlecca.org/documents/Yakima%20Fruit%20Paste%20Recipe%20for%20Constipation.pdf

Pruritis (Itch)

Prescription

- Menthol 0.25%
- Camphor 0.25%
- Hydrocortisone 2.5% (optional)
- Glaxal Base

Over-the-Counter

- Gold Bond Ultra with Menthol or Camphor
- A535 Cream
- Vics VapoRub

Malodourous Wounds

Remember the Basics

- Empty Garbage after wound care
- Change soiled linens when wet
- Consider wound care products designed to trap odour

Recipes to Help

- Orange with Cloves
- Shaving Cream
- Used Coffee Grinds
- Vanilla on Cotton Balls

Image Credit: https://hisugarplum.com/clove-oranges-aka-best-smelling-things/

#9 Meet Methadone

History of methadone

- Developed in Germany in 1939 in response to opium shortage in Germany during the war.
- AMA in United States approved drug as alternative to morphine
- US received transfer of patent in 1947 and oral pills manufactured by Eli Lilly for pain management—a "Strong opioid" on WHO ladder
- In early 1960s it was found to also be useful for opioid replacement therapy in addiction
- **In Ontario use previously required special licensing. This is no longer the case**

Metabolism

- Mainly in the **liver** to several inactive metabolites (so can accumulate in hepatic impairment)
- Excretion: urine ± 10% of methadone is eliminated unchanged through the kidneys. (may be some excretion through intestines-variable info)
- **Poorly removed by hemodialysis** (this can be helpful when used for patients on dialysis but an issue if overdose)

- Lexi online 2025; Smith, H: 2009. Opioid Metabolism, Mayo Clinic Proceedings, 84(7) 613-24); J Crit Care. 2016 Aug;34:84-8. doi: 10.1016/j.jcrc.2016.03.023. Epub 2016 Apr 5.)

Mechanism of Action

- Opioid receptor agonist
- NMDA (N-methyl D-aspartate) **antagonist**

- (Lexi online from Callahan 2004)

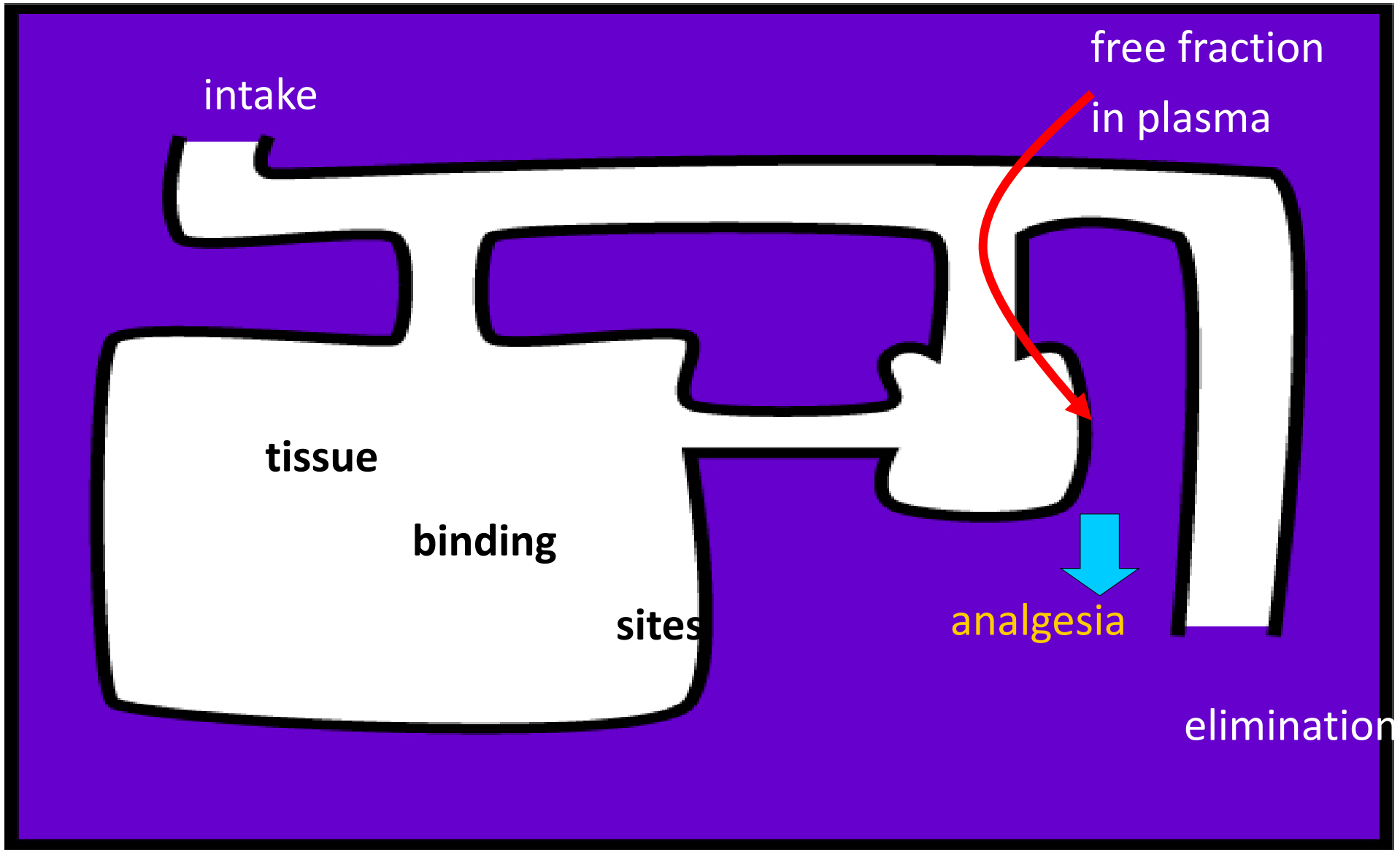
- **Why does this matter?**

A bit about role of NDMA receptor…

- NDMA is the receptor for the EXCITATORY neurotransmitter glutamate
- Activation associated with
  - Hyperalgesia
  - Neuropathic pain
  - Reduced function of opioid receptors

http://www.medscape.com/viewarticle/744071_3

Methadone metabolism is special....



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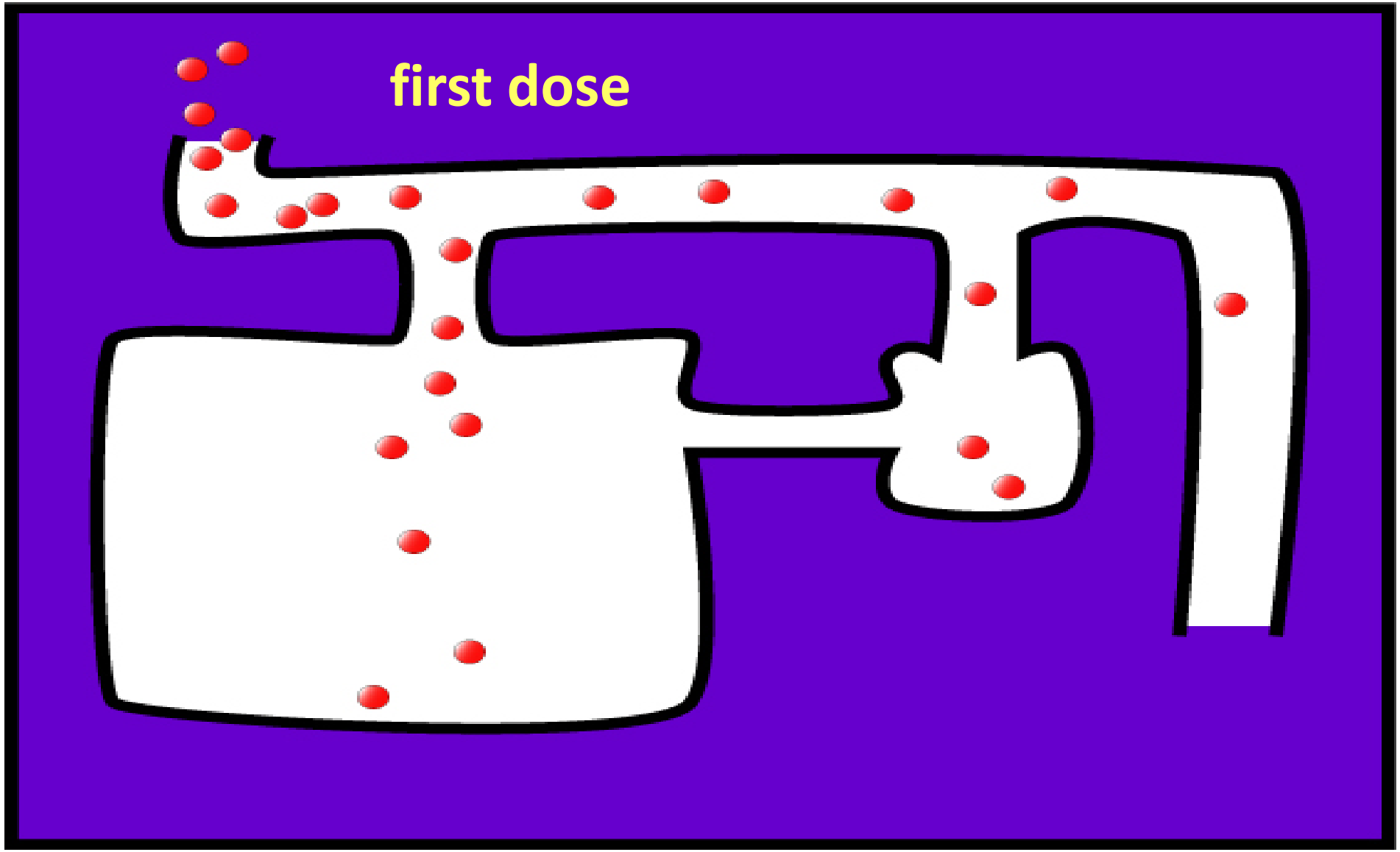

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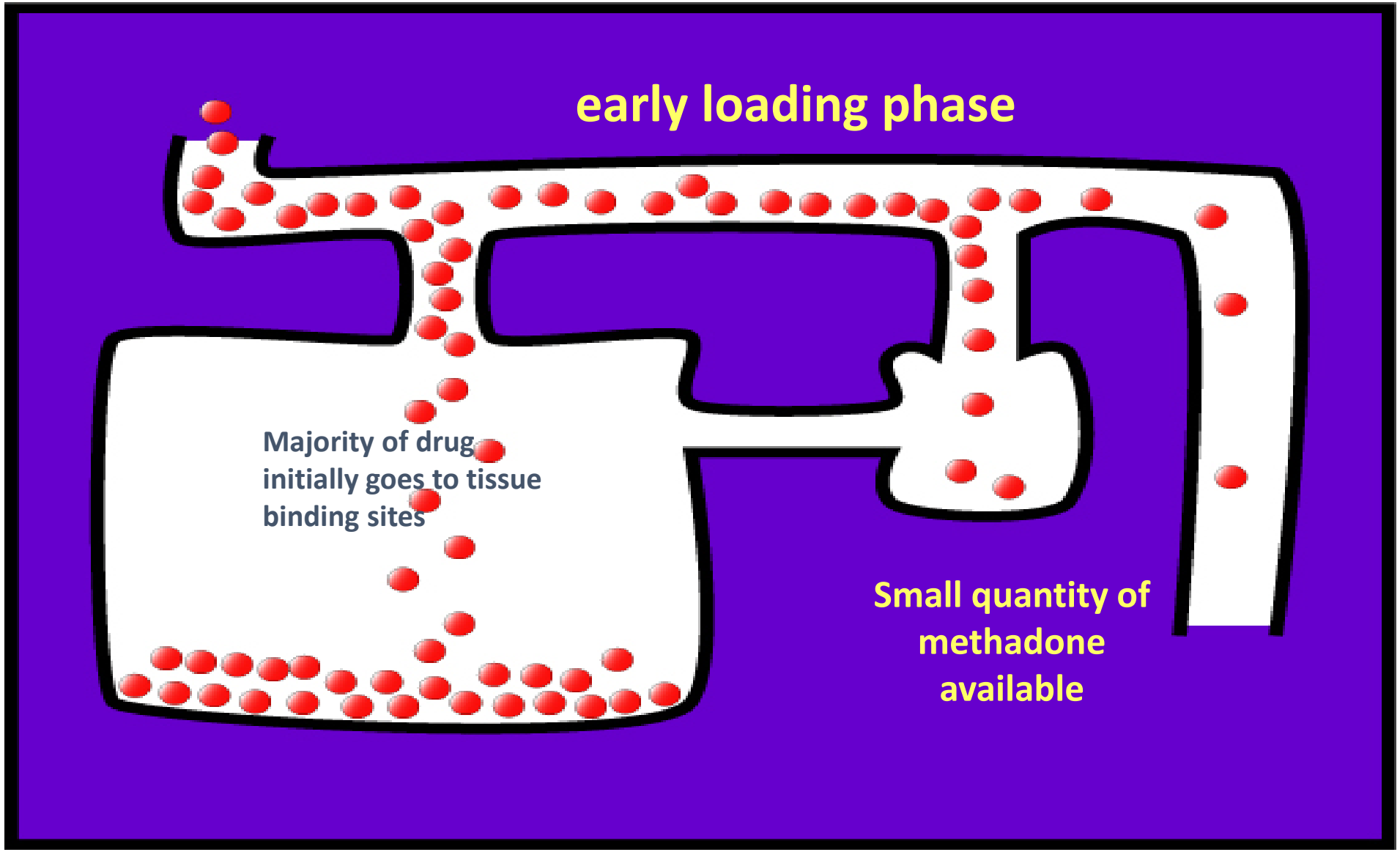

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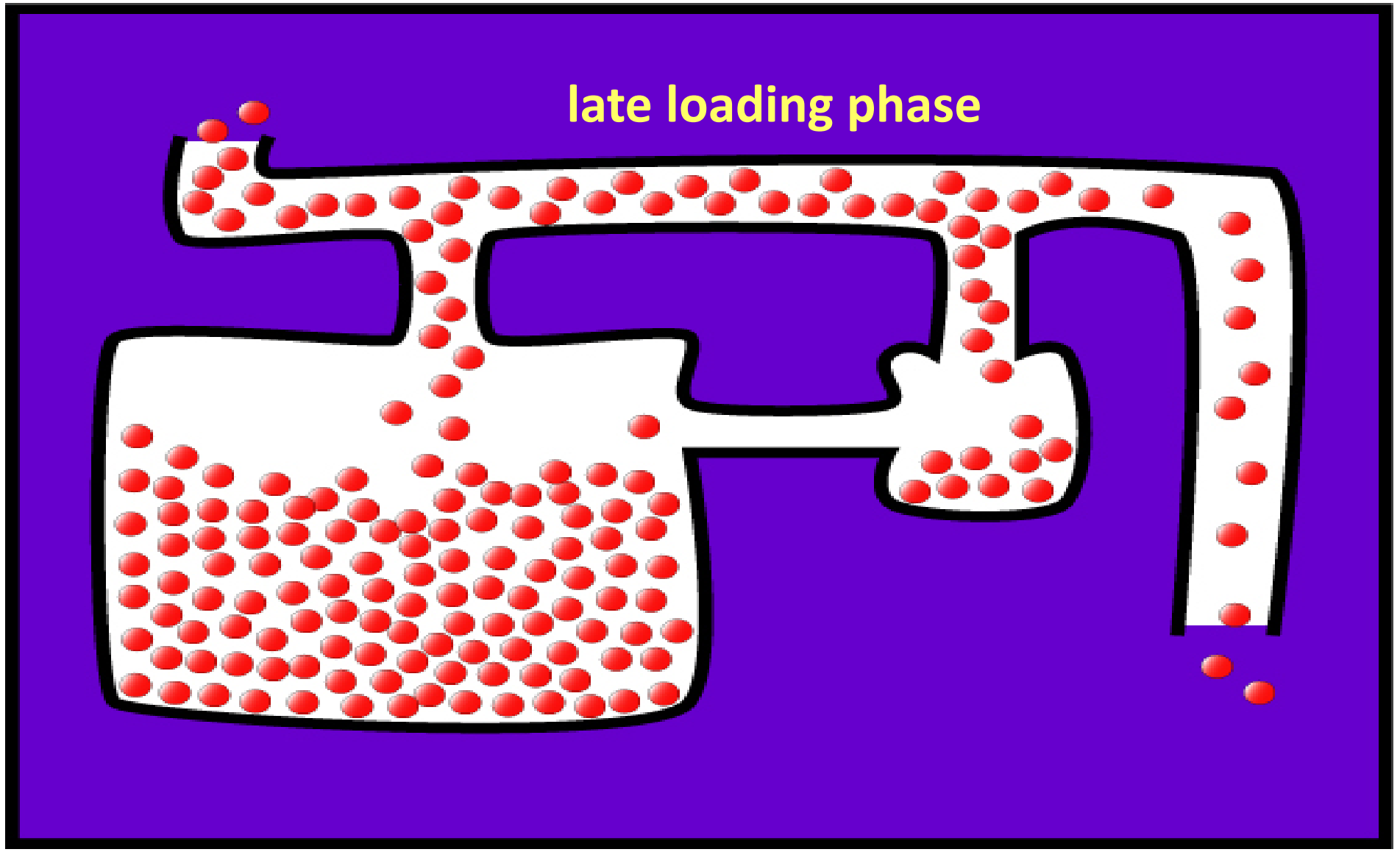

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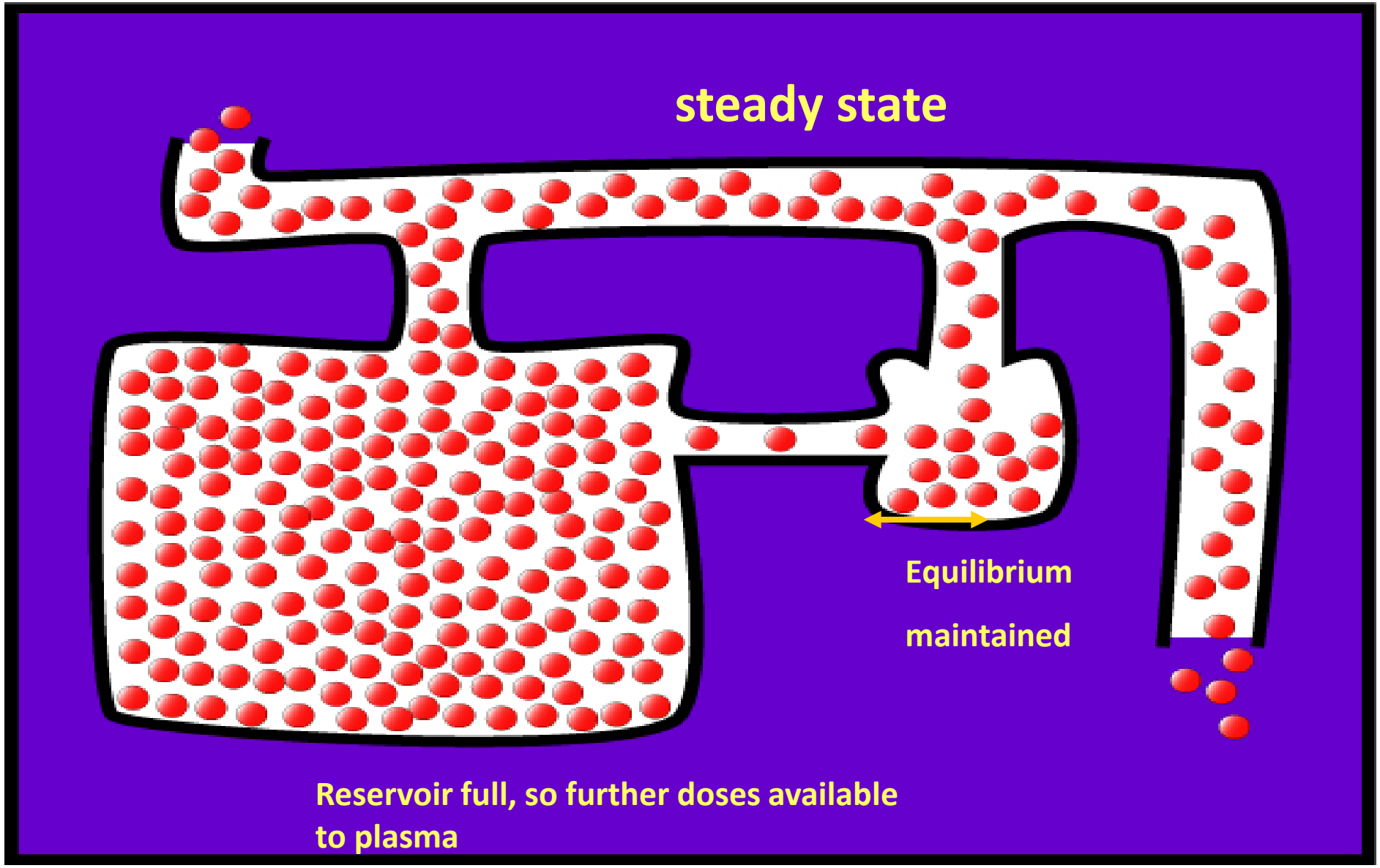


Adapted from: Gannon C.. *European Journal of Palliative Care,* 1997; 4(5)

Methadone pharmacokinetics: Impacts

- Oral bioavailability: range 36-100% (only readily available form in Ontario)
- Half life: **8-59** hrs (variable numbers)
- Onset 0.5-1 hour
- Duration of analgesia: **4-8 hr single dose** but can be **22-48 with repeated doses** (again, variable numbers, inter-individual variability)
- Peak effect (oral) **3-5 days**
- Steady state: **2 – 10 days**

- (Lexi online)

Another complications:
Conversion from other opioids is not linear:

Conversion table from morphine to methadone

24 hour total dose of oral morphine	Conversion ratio (oral morphine: oral methadone)
<30mg	2:1 (2mg morphine to 1mg methadone)
31-99mg	4:1
100-299mg	8:1
300-499mg	12:1
500-999mg	15:1
1000-1200mg	20:1

>1200 mg Consult with palliative care or pain specialist prior to prescribing

Adapted from AAHPM Palliative Care Primer, 2019 edition with permission from Timothy Quill M.D.

Reasons may choose:

- Feel the NMDA receptor antagonism will be helpful
- Cheap(ish)—Covered by ODB under Facilitated Palliative Access
- No known ACTIVE metabolites – And with primarily liver metabolism can be a good choice for patients with renal failure
- Consider as alternative if “true” allergies to other opioids
- May have advantages if history of substance use disorder (but long half life can increase risk in overdose)

#10 Practical Tips for Methadone Use

Consult re conversion

Titrate slowly

- Variable half life
- Variable tissue distribution
- Steady state 2-10 days
    - For most people titrating weekly OK

Monitor QT*-Methadone can be QT prolonging

Benefit may still outweigh risk—discuss.

ECG monitoring:

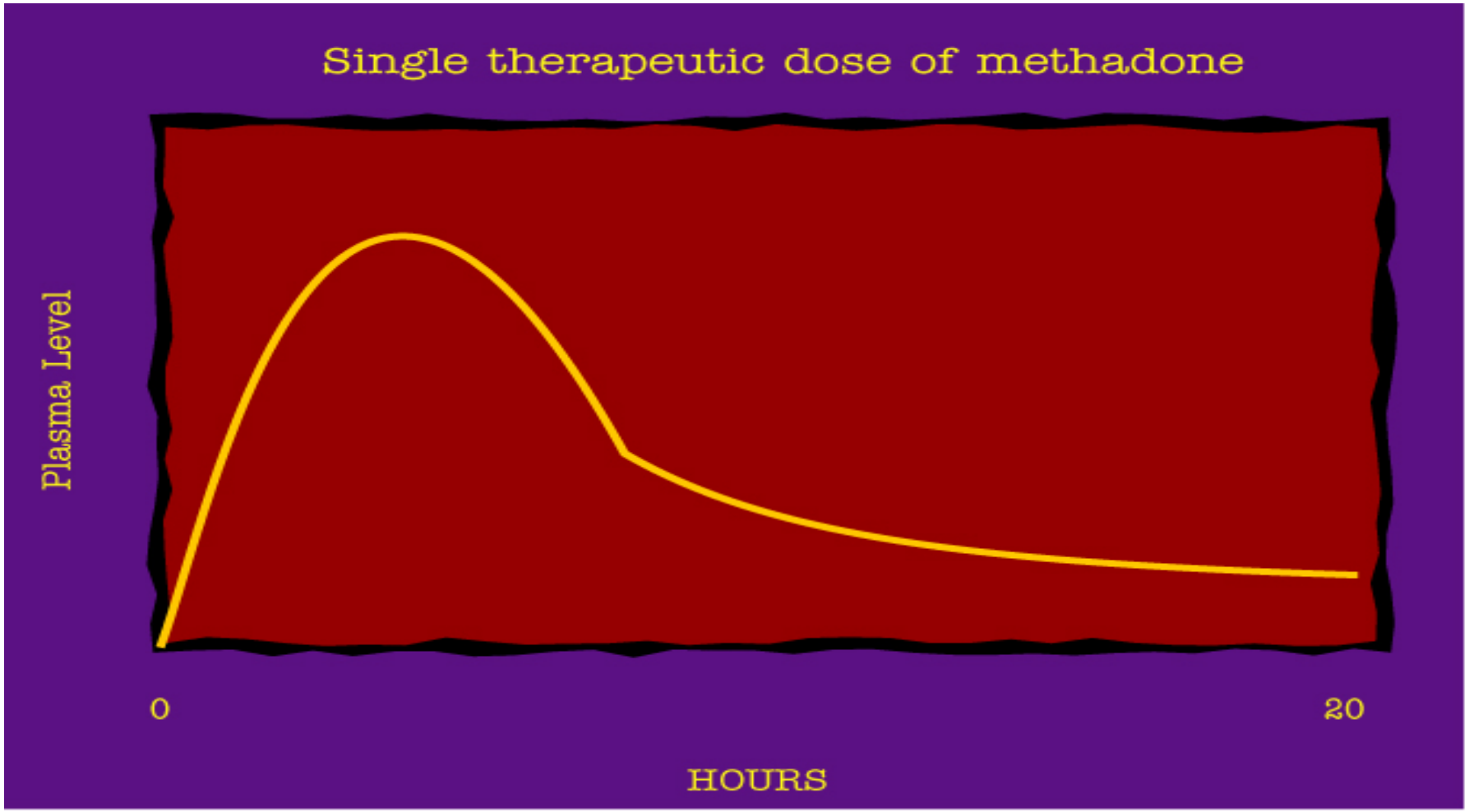
- At initiation
- Repeat 24 hours after initiation
- 4 days after steady state achieved
- With any escalation in dose
- With any change in patient's condition
- With addition of any QT prolonging agent
- With any electrolyte disturbance

Consider drug interactions

May Increase serum levels of Methadone (increased efficacy/toxicity)	May decrease levels of methadone (increased methadone dose may be required)	May cause an unpredictable reaction (increase or decrease)
Alcohol- acute ingestion Amiodarone Sodium bicarbonate Chamomile Cimetidine Ciprofloxacin Clarithromycin Delavirdine Diazepam Diltiazem Echinacea Erythromycin Fluconazole Fluoxetine Fluvoxamine Goldenseal Cat's claw Indinavir Isonaizid Itraconazole Isonaizid Itraconazole Grapefruit juice (6-8 glasses/day) Ketoconazole Metronidazole Moclobemide Paroxetine Quinidine Sertraline Verapamil	Alcohol- chronic ingestion Amprenavir Abacavir Ammonium chloride Barbituates Carbamazepine Cocaine Dexamethasone Elavirenz Fosamprenavir Lopinavir/ritonavir Nelfinavir Nevirapine Phenytoin Potassium phosphate Ritonavir Rifampin Risperidone Spironolactone St. John's Wort Tobacco (cigarette smoke) Vitamin C (high doses)	Benzodiazepines: Alprazolam Flurazepam midazolam Didanosine Dextromethorphan Nifedipine Stavudine TCA's: Amitriptyline Desipramine Imipramine Nortriptyline Ziduovudine

What about breakthrough?

Methadone **can** be used for breakthrough pain **BUT** often is not
If used usually dosed q3 hours prn, often with a cap of 4/day



Nilsson MI, et al. Clinical PharmacokineticsNilsson MI, et al. Clinical Pharmacokinetics of Methadone. Acta anaesth. Scand. 1982; 74, 66-69 of Methadone

End of Life- when swallowing is lost (consider before initiating)

- Parenteral forms not relatively available so what do you do if patient cannot swallow:
    - It is absorbed both transmucosally and rectally
- Due to unpredictable pharmacokinetics and as most people on methadone have failed other opioids; avoid rotation at end of life if possible. (Consider before initiating)
- (Hawley, P. : http://dx.doi.org/10.1016/j.jpainsymman.2015.03.006)

If rotation is too complex can consider using low dose methadone as an adjuvant

Helpful resources:

- Methadone 4 Pain: https://www.virtualhospice.ca/learninghub/
- Useful article (also on virtual hospice site): https://www.virtualhospice.ca/Assets/McPherson%20et%20al%20Safe%20and%20Appropriate%20Use%20of%20Methadone%20in%20Hospice%20and%20PC%20March%202019_20190510102006.pdf

Mentimeter (Revisited)

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