PEBC QUALIFYING MCQ PREPARATION COURSE
SAMPLE LECTURE

PEBC MCQ

HYPERTENSION CANADA 2025

FENTANYL

PHARMACIST-PATIENT RELATIONSHIP IN CANADA

By Mohamed Habash, BPharm
RxCourse Institute Inc.

DIAGNOSIS For adults ≥ 18 years managed in primary care.

Step	Recommendation	Key Points
BP Measurement	Use **validated automated devices**; follow standardized technique.	Patient seated ≥ 5 min, back supported, arm at heart level, average of 2–3 readings.
Confirm Diagnosis	Confirm with **home (HBPM)** or **ambulatory BP monitoring (ABPM).**	Avoid diagnosis on single-day office readings
Diagnostic Threshold	**≥ 130/80 mmHg** (mean, validated device).	Applies to most adults.
White-Coat / Masked	Use out-of-office BP to rule out/in before long-term therapy.	20–30 % may have white-coat HTN.

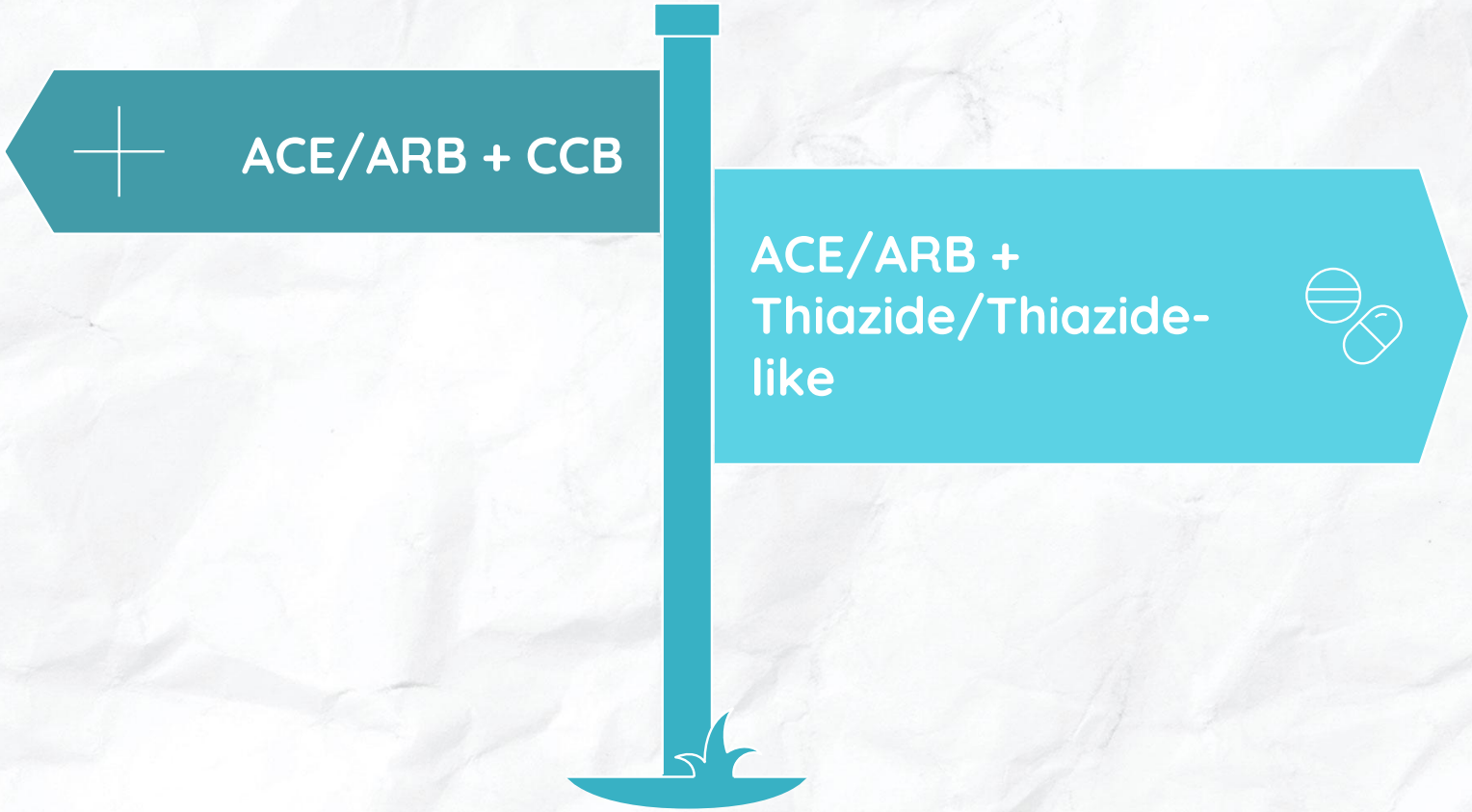
PHARMACOLOGIC THERAPY
WHEN TO START?

Category	Start Pharmacotherapy if BP ≥	Target BP
General population	140/90 mm Hg	< 130 mm Hg SBP
High CV risk (ASCVD, diabetes, CKD, ≥ 75 y, 10-yr risk > 15 %)	130/80 mm Hg	< 130 mm Hg SBP
Elderly / frail	Individualize	Usually < 140–150 mm Hg SBP

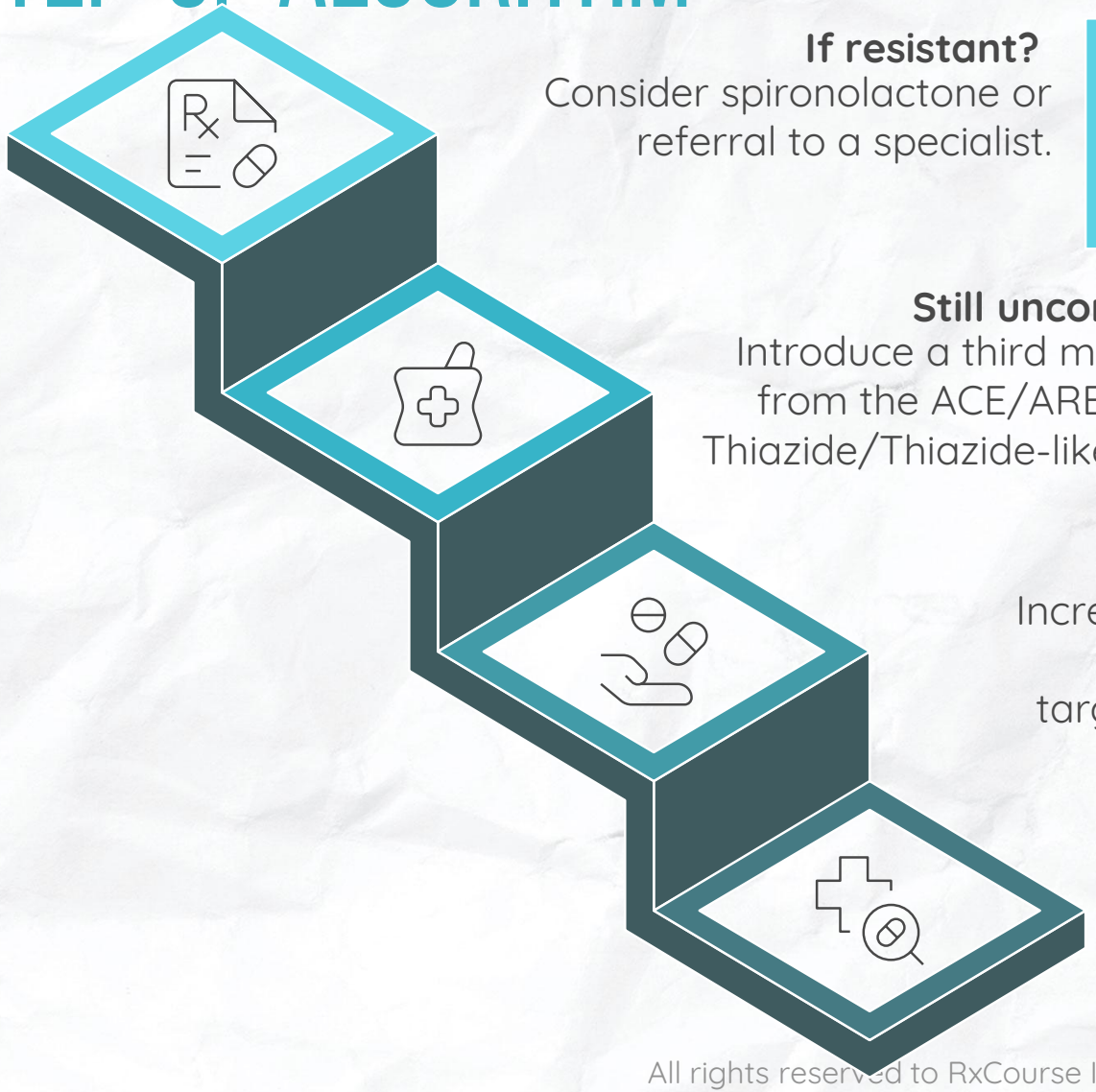
FIRST-LINE DRUG CLASSES

ACE inhibitor or ARB	Thiazide or thiazide-like diuretic	Long-acting DHP calcium-channel blocker
ACE inhibitor or ARB (if ACE-intolerant)	Thiazide or thiazide-like diuretic	Long-acting DHP calcium-channel blocker (amlodipine, felodipine)

PREFERRED INITIATION ALGORITHM LOW-DOSE SINGLE-PILL COMBINATION (SPC) OF TWO DIFFERENT CLASSES:



STEP-UP ALGORITHM



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If resistant?
Consider spironolactone or referral to a specialist.

3

Still uncontrolled?
Introduce a third medication from the ACE/ARB, CCB, or Thiazide/Thiazide-like classes.

2

If not at target?
Increase the SPC dose to the maximum if the target blood pressure is not achieved.

1

Initiate Low-Dose SPC
re-check in 4–6 weeks.

PRACTICAL PHARMACIST NOTES

Issue	Updated Guideline Advice
Adherence	Once-daily SPCs preferred → improves persistence
ACE → ARB after angioedema	**Not contraindicated.** No mandatory washout period unless no airways obstruction.
Diuretic choice (UPDATE 2025)	• **Thiazide and thiazide-like agents are considered interchangeable for CV outcomes.** • Large RCT showed similar CV protection; chlorthalidone caused more hypokalemia. • Choose based on tolerability, electrolytes, availability, and SPC cost.
CCBs	• Long-acting DHP preferred (amlodipine, felodipine). • Avoid short-acting nifedipine.
β-blockers	Not first-line unless compelling indication (HF w/LVEF ≤ 40 %, post-MI, angina)

MONITORING & FOLLOW-UP

Interval	What to Assess?
1–2 mo after start	BP response, adherence, electrolytes, renal function
After target reached	Every 3–6 mo
Home monitoring	≥ 3 days/week average for control confirmation

KEY SOURCES (CANADIAN 2025 UPDATES)

- Hypertension Canada Primary Care Guideline 2025.
- “Responses to Frequent Questions – 2025 Primary Care Guideline” (Hypertension Canada).
- Hypertension Canada website and news release (May 2025).
- Recent RCT comparing chlorthalidone vs HCTZ – no CV difference but ↑ hypokalemia with chlorthalidone

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FENTANYL CONVERSIONS

All fentanyl conversion scenarios hinge on: a validated oral morphine to transdermal fentanyl rule of thumb of **“2 mg oral morphine per day ≈ 1 mcg/h TDF,”** .

FENTANYL PHARMACOLOGY AND KINETICS

Potency

Potent, lipophilic μ-agonist ≈75–100× morphine by mg.

CNS Entry

Rapid CNS entry.

Formulation

Multi-formulation availability (parenteral, transdermal, transmucosal/buccal).

Transdermal Onset

Onset of minimally effective levels ≈12 hours.

Transdermal Tmax

Tmax ≈36 hours.

Transdermal Steady State

Steady state in 3–6 days.

FENTANYL PHARMACOLOGY AND KINETICS

Transdermal Half-life

After removal, serum declines slowly with a half-life ≈17 hours on average (range 13–22 hours), (50% at 17h, 75% at 34h, 87.5% at 51h, 93.5% at 68h) due to skin depot

Patch Strengths

12 mcg/h (delivers ~12.5), 25, 50, 75, 100 mcg/h; deliver over 72 h; matrix and reservoir systems are bioequivalent; substantial residual drug remains after 72 h.

Heat Effect

Heat increases absorption by ~33% and has led to fatalities (heating pads, saunas, fever)

Intravenous Half-Life

Plasma elimination half-life of about 2 to 3 hours.

TDF: INDICATIONS, CONTRAINDICATIONS, AND SAFETY

Not for

TDF is not for acute, mild, intermittent, or post-op pain.

Opioid-tolerant patients with moderate-severe chronic pain

TDF is for persistent, moderate–severe chronic pain in opioid-tolerant patients ≥1 week of:

- ≥60mg oral morphine/day
- ≥30 mg oxycodone/day
- ≥8 mg hydromorphone/day)

Misuse, heat exposure, cachexia/elderly

Fatalities reported with misuse and heat exposure; cachexia/elderly may have altered kinetics and variable absorption; clinical vigilance is required.

Opioid-naïve patients, CYP3A4 inhibitors

- Do not use in opioid-naïve patients;
- CYP3A4 inhibitors can dangerously raise levels.

CONVERTING TO TRANSDERMAL FENTANYL

Stabilize pain first

Ensure pain is under control before conversion

Compute 24 h oral morphine equivalents (OME) including routine breakthrough used for predictable and spontaneous pain

Compute 24 h oral morphine equivalents (OME)

Apply Practical Rule

2 mg oral morphine per day ≈ 1 mcg/h TDF;
i.e., 60 mg oral morphine/day ≈ 25 mcg/h TDF.

CONVERTING TO TRANSDERMAL FENTANYL

Manufacturer's table is conservative and should not be used to convert from TDF back to oral morphine; Donner data suggest ~100:1 oral morphine: TDF with real-world closer to ~70:1; the 2:1 rule is the common bedside approach.

Manufacturer's Table

Do not apply cross-tolerance reductions

Do not apply cross-tolerance reductions when converting to TDF; the conversion step already embeds conservatism.

TIMING/BRIDGING

Long-Acting Dose

Administer one last oral long-acting dose at patch application to ensure continuous medication coverage.

Short-Acting Doses

Administer 2-3 scheduled short-acting doses at 0, +4, +8 hours after patch application to maintain medication levels.

PRN Management

If the patient had an effective PRN before conversion, continue the same PRN; if not, start PRN at ~10–15% of daily OME q2h as needed.

TITRATION PROTOCOL

4. Delay Efficacy Judgement

Do not judge efficacy in the first 24 hours after a change.

3. Patch Interval Standard

Patch interval: standard q72h; ~20% may need q48h if last 24 h shows increased PRN use; do not go below 48 h.

2. Increase TDF

Increase by 25–50mcg/h; do not exceed a 100% increase from current dose nor >50mcg/h per single increment; reassess after two full 72-h applications at the new dose if needed.

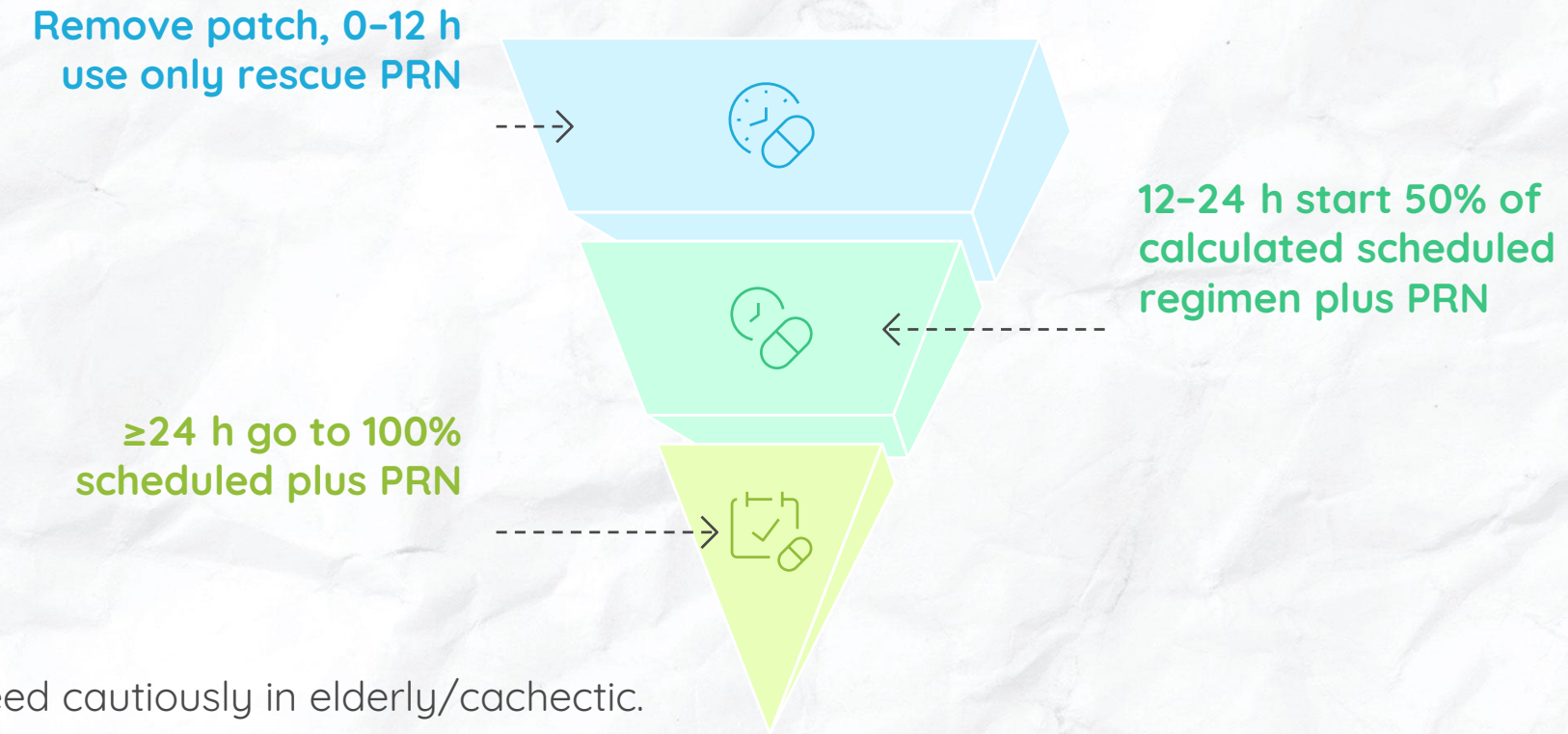
1. Reassess Absorption

Reassess days 2–3 when absorption is ≥88–94%; if >3 PRN doses/day for spontaneous pain, increase TDF to cover average PRN consumption (convert PRN OME via 2:1 rule).

CONVERTING FROM TDF TO OTHER OPIOIDS

Reverse equivalence:
TDF mcg/h × 2 ≈ mg/day oral morphine (e.g., 50 mcg/h ≈ 100 mg/day oral morphine);

Timing to avoid overlap toxicity



Proceed cautiously in elderly/cachectic.

TDF AND SPECIAL POPULATIONS

Elderly Patients

Elderly absorb less on average (e.g., >75 years ≈50% vs >65 years ≈66% over 72 h)

Cachectic Patients

Cachectic patients may appear under-responsive—base reverse conversion on last effective patch strength and liberal PRN; safety-first approach is emphasized.

PARENTERAL FENTANYL, IV↔TDF CONVERSIONS

Hourly Equivalence

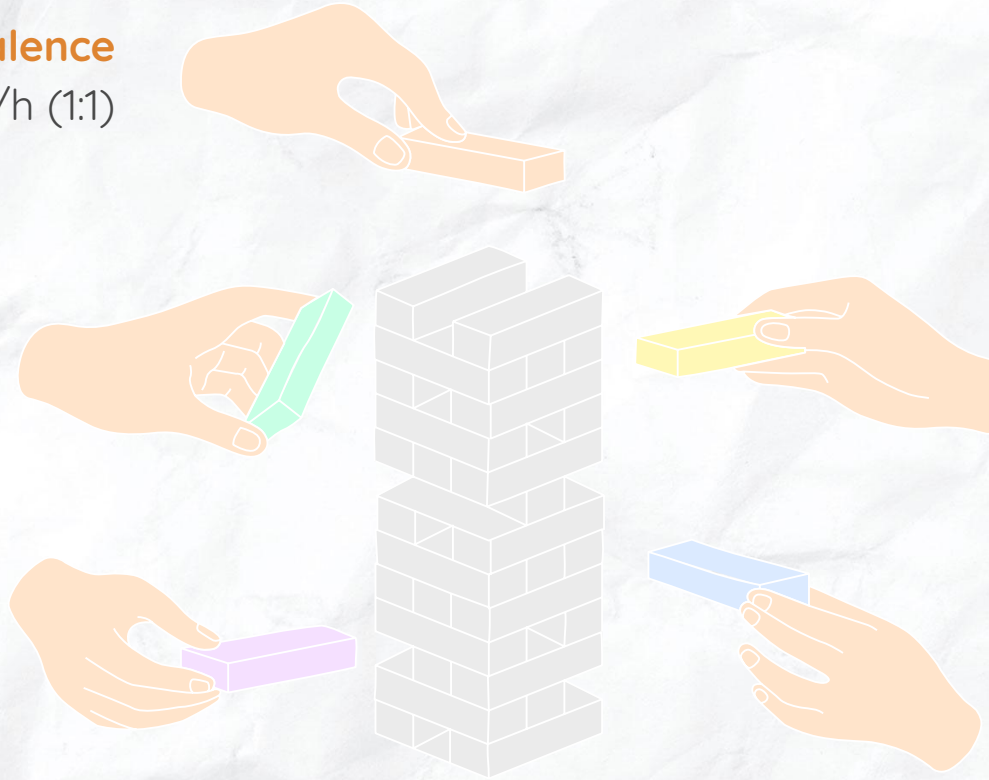
TDF mcg/h ≈ IV fentanyl mcg/h (1:1)

TDF → IV Crisis

(select situations): remove patch and start 1:1 IV rate immediately with frequent boluses, accepting temporary overlap from skin depot under close monitoring.

IV Fentanyl from Oral Morphine

For IV fentanyl from oral morphine, 10mg IV morphine ≈ 0.1 mg (100 mcg) IV fentanyl by some tables, but many clinicians use a 1:40 morphine: fentanyl ratio rather than 1:100 for chronic conversion, yielding higher fentanyl rates; allow conservative starts with boluses and titrate to response.



TDF → IV Non Crisis

- remove patch;
- 0–6 h IV PRN only;
- at 6 h start IV infusion at 50% of TDF rate;
- at 12 h increase to 100%; keep PRN.

IV → TDF

- apply a patch matching the current IV hourly rate;
- at +6 h reduce IV by 50%;
- at +12 h stop infusion;
- keep IV bolus PRN through 24 h total.

PRN OPIOID STRATEGY

How should I choose a PRN opioid?

PRN choice can differ from the baseline opioid.

What about transmucosal fentanyl products?

They are not reliably correlated to patch strength. Start at the lowest dose and titrate by product-specific rules if used.

What if I use immediate-release morphine/oxycodone/hydromorphone?

Typically, use 10–15% of daily OME q2h PRN.

CASE 1

A patient takes morphine IR 15 mg q4h ATC and morphine IR 10 mg q2h PRN, averaging 3 PRN doses/day. Pain is stable but tablets are hard to swallow. What single TDF patch and exact conversion timing are most appropriate today at 08:00?

a) 50 mcg/h; apply patch at 08:00, no oral bridging, start PRN only at 12:00

b) 50 mcg/h; apply patch at 08:00, give 15 mg morphine at 08:00 and 12:00, and keep PRN available

c) 75 mcg/h; apply patch at 08:00, give 15 mg morphine at 08:00 and 12:00, and keep PRN available

d) 75 mcg/h; apply patch at 08:00, no oral bridging, stop PRN for 12 h

CASE 2

Elderly cachectic 92-year-old responded to TDF 50 mcg/h initially; no benefit when increased to 75 then 100 mcg/h. Now switching to SQ morphine q4h. Which starting plan is safest and evidence-aligned?

a) Base on 100 mcg/h; ~200 mg/day oral morphine → ~66 mg/day parenteral → 11 mg SQ q4h

b) Base on last patch 100 mcg/h; start 7.5 mg SQ q4h

c) Base on last effective 50 mcg/h; ~100 mg/day oral morphine → ~33 mg/day parenteral → 5 mg SQ q4h

d) Base on 75 mcg/h; 75 → 150 mg/day oral → 50 mg/day parenteral → 8 mg SQ q4h

CASE 3

A 72-year-old woman on TDF 50 mcg/h for 6 months presents with falls and new confusion. Meds: amitriptyline 25 mg qHS, lorazepam 1 mg BID PRN (recent daily use), sertraline 50 mg daily. Daughter requests switching off the patch to an oral regimen with clearer titration and monitoring. No hepatic impairment; eGFR 58 mL/min.
What is the safest conversion plan in the first 24 hours?

a) Remove patch now; immediately start 100 mg/day oral morphine ATC; hold PRN first 12 h
b) Remove patch now; 0–12 h PRN only; 12–24 h start 50 mg/day oral morphine ATC; ≥24 h go to 100 mg/day
c) Remove patch now; immediately start 75 mg/day oral morphine ATC due to fall risk; PRN as needed
d) Keep patch for 12 h while starting 100 mg/day oral morphine ATC, then remove patch

CASE 4

A 58-year-old with pancreatic cancer is on IV fentanyl 80 mcg/h. Over the last 24 hours he required 8 boluses of 40 mcg for movement-related pain during nursing care. Discharge tomorrow with TDF is planned. He is alert, without oversedation, and wants to avoid infusion devices at home.
Which is the best transition plan?

a) Apply TDF 75 mcg/h now; at +6 h reduce IV to 40 mcg/h; at +12 h stop IV; continue IV PRN boluses through +24 h total
b) Apply TDF 100 mcg/h now; keep IV 80 mcg/h for 24 h due to frequent PRNs
c) Apply TDF 100 mcg/h now; at +6 h reduce IV to 40 mcg/h; at +12 h stop IV; keep IV PRN bolus through +24 h total
d) Apply TDF 125 mcg/h now; stop IV immediately; switch PRN to oral oxycodone only

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16. https://www.pnnl.gov/explainer-articles/fentanyl-analogs
17. https://rightdecisions.scot.nhs.uk/scottish-palliative-care-guidelines/medicines-information/choosing-and-changing-opioids-opiates-convertingswitching/choosing-and-changing-opioids-opiates/?searchTerm=fentanyl
18. https://www.sciencedirect.com/science/article/pii/S088539241500175X

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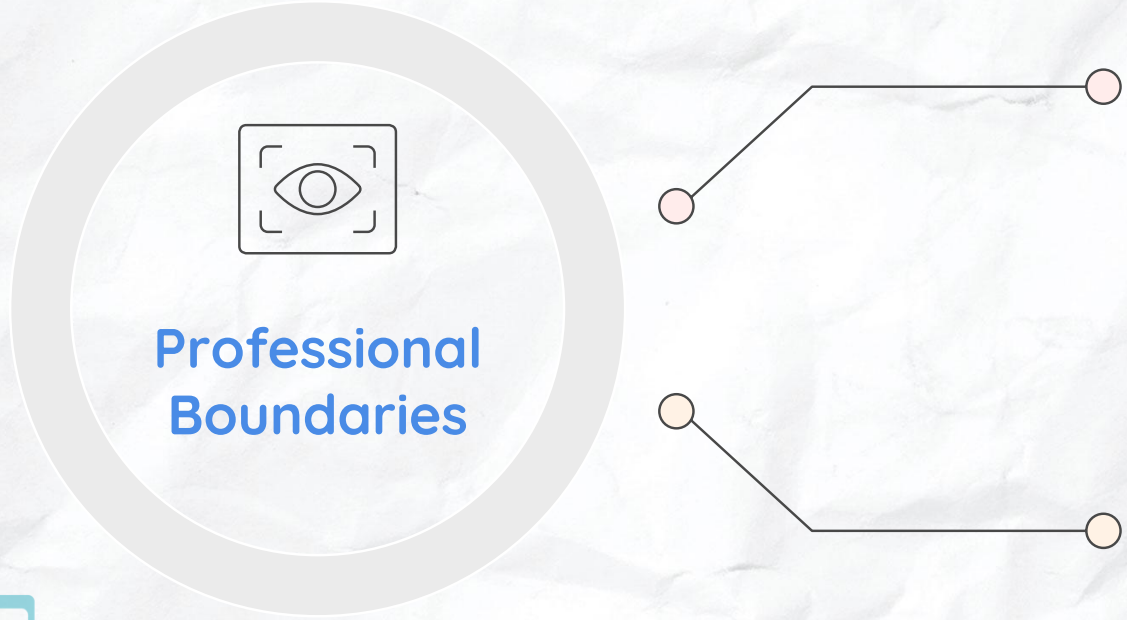
PROFESSIONAL BOUNDARIES

Pharmacists are regulated healthcare professionals in Canada, and maintaining **clear, professional boundaries** with patients is essential for ethical practice, patient safety, and public trust.



No sexual or romantic relationships

Strictly prohibited by all regulators.

Avoiding dual relationships

(e.g., patient and friend, patient and business associate), which could compromise care or judgment.

ACCEPTING OR GIVING GIFTS GUIDLINES

Giving or receiving gifts between pharmacists and patients can risk **compromising professional judgment** or creating **conflicts of interest**.

Token Gifts

Small, **token gifts** of gratitude (e.g., a thank-you card, a box of chocolates) may be acceptable if:

- They're **not frequent** or excessive.
- They don't
- influence care or create a feeling of obligation.
- They are shared with the pharmacy team to reduce personal connection.

Valuable Gifts

Valuable gifts or money should be politely declined, as they can:

- Be interpreted as favoritism.
- Breach ethical codes and conflict-of-interest policies.

Regulatory Guidelines

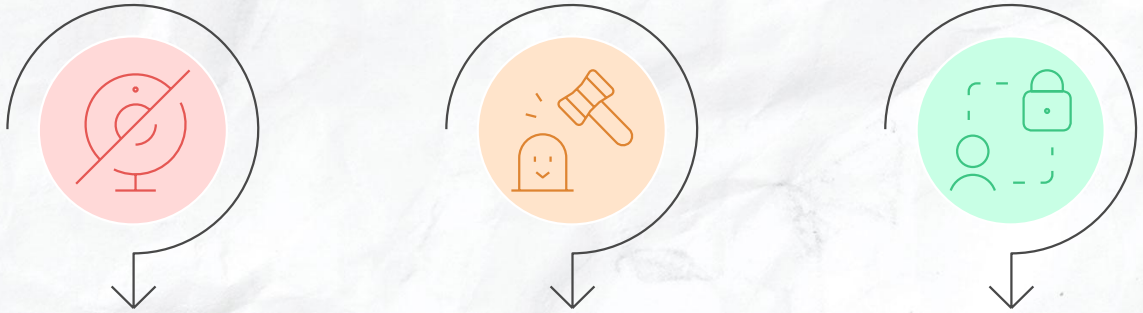
Pharmacists should consult their **provincial regulatory college's guidelines** (e.g., Ontario College of Pharmacists, Alberta College of Pharmacy), which often address gift policies specifically.

SOCIALIZING (E.G., RESTAURANTS, FRIENDSHIPS)

Avoided

Social activities with current patients—such as **eating out together**, **attending personal events**, or maintaining close friendships—should generally be **avoided or carefully managed**.

ROMANTIC OR SEXUAL RELATIONSHIPS



Prohibited Relationships

Strictly **prohibited** with patients under all circumstances while a professional relationship exists

Consequences of Misconduct

This is considered **sexual misconduct** and can lead to:
- **Disciplinary action** by the licensing body.
- **Loss of license** or suspension.
- Legal complaints and reputation damage.

Professional relationship terminated

Once a **professional relationship is terminated**, a romantic relationship may be permitted **only if:**
- There is no likelihood the patient will return for care.
- A reasonable amount of time has passed.
-There are protections in place to manage lingering power imbalances.

ETHICAL TERMINATION OF PHARMACIST-PATIENT RELATIONSHIP

Pharmacists may terminate a therapeutic relationship in certain cases but must do so **ethically and professionally**.

Refusing care out of discrimination or without just cause may **violate human rights legislation**, such as the **Ontario Human Rights Code**.

Ethical Termination Process:

Identify Termination Reasons

- The patient is abusive, threatening, or harasses staff.
- Breakdown of trust that impairs care.
- Conflict of interest or boundary issues.

Provide Advance Notice

Pharmacist communicates termination with reasonable notice

Document Rationale

Reason for termination should be documented and explained (if appropriate)

Offer Referrals

Offer to transfer care to another pharmacist or pharmacy.

Ensure Emergency Care

If no alternative provider is available, the pharmacist may be expected to provide care until one is found.

GIFTS AND BENEFITS FROM DRUG COMPANIES (PHARMACEUTICAL INDUSTRY)

Education and Meals

Modestly valued meals linked to legitimate educational events can sometimes be acceptable, but sponsoring lavish dinners or all-expenses-paid events remains banned.

Current Guidelines

Prioritize transparency and conflict-of-interest management.

Small, Unbranded Items

inexpensive items such as pens, sticky pads, or coffee mugs have been common, but the trend and push is toward greater restriction.

Almost all gifts

Most codes now explicitly ban almost all gifts from the pharmaceutical industry, even small promotional items.

Prohibited Gifts

Gifts of substance, such as cash, personal gifts, expensive meals, or entertainment, are not acceptable.

Trend

The trend in Canadian provinces is toward elimination or strict limitation of all gifts, following the lead of major medical regulators.

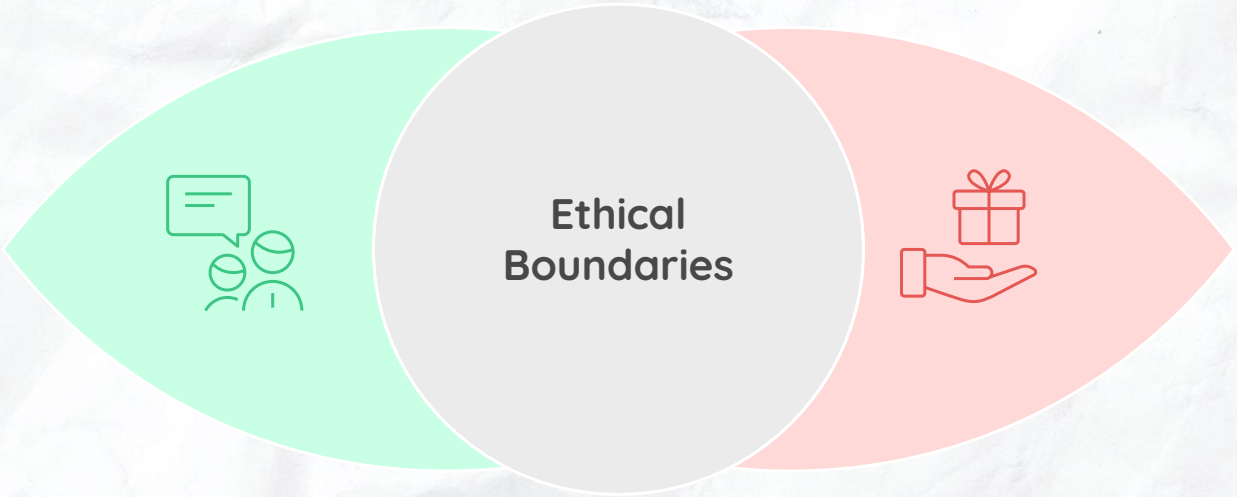
Influence Forbidden

Any gift intended to influence prescribing or formulary decisions is forbidden.

ETHICAL INTERACTIONS WITH PHYSICIANS

Business Lunches

- **Permissible:** Modest meals in the context of legitimate professional, educational, or collaborative meetings.
- **Not Permissible:** Extravagant meals, entertainment, or any hospitality that could influence prescribing or business decisions.



Gifts/Transfers from Physicians

Receiving referral fees or personal gifts from physicians related to patient referrals/prescriptions is prohibited.

Collaboration and clinical support (feedback, case consultations, shared education) are encouraged, but not personal gifts

EDUCATIONAL SESSIONS IN PHARMACIES WITH MEDICATION COMPANIES:

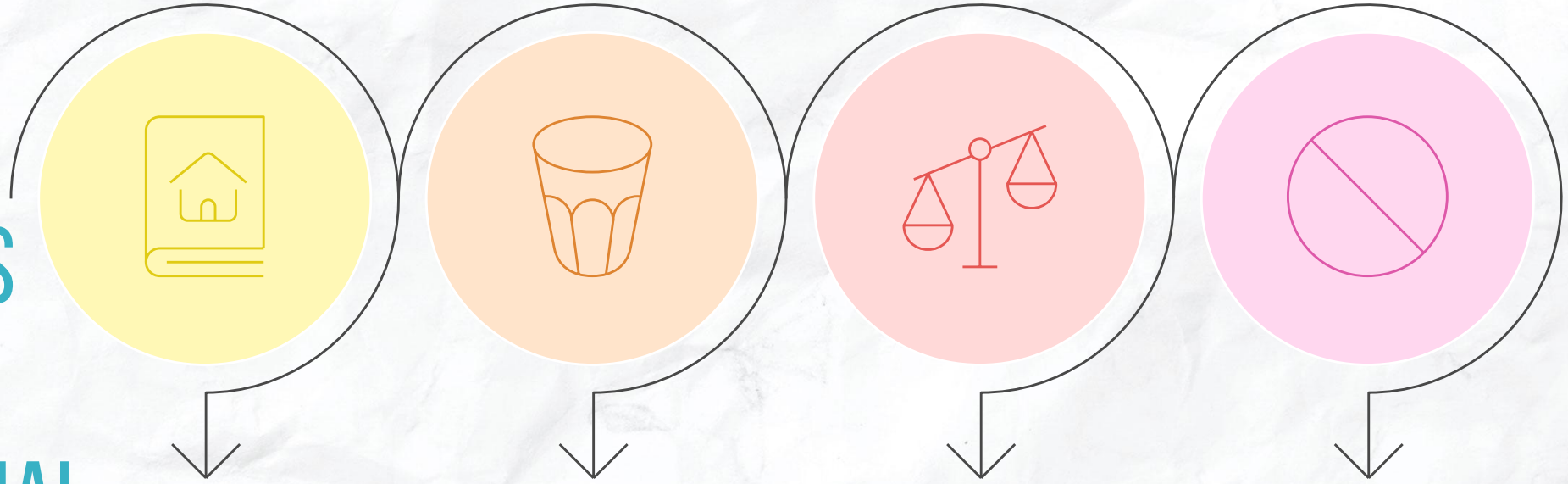
Non-Prescription (Non-Rx)

Standards differ depending on whether the products discussed are non-prescription.

Prescription (Rx)

Standards differ depending on whether the products discussed are prescription.

GENERAL PRINCIPLES FOR EDUCATIONAL SESSIONS



Educational Purpose

Prioritize public health education, not product promotion.

Transparency

All participants must disclose any affiliations or sponsorship from the pharmaceutical company.

No Product Endorsement

The session content must be balanced, evidence-based, and avoid direct endorsement or “promotion” of specific products.

Advertising Restrictions

Both Canadian law and professional guidelines strictly control product advertising and promotion in health settings, especially for Rx drugs.

NON-PRESCRIPTION (OTC) PRODUCTS

General Health Information

Can include general health information, such as symptom management, prevention tips, and safe use of non-prescription products.

Product Discussion

Discussion of product types and categories is allowed (e.g., “allergy relief medications”) with factual statements about ingredients, uses, and warnings.

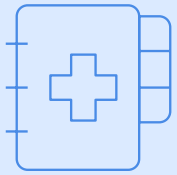
Avoid Therapeutic Claims

Must avoid making therapeutic claims not supported by evidence or Health Canada approval.

Brand Name Mentions

You may mention specific brand names in an educational context, but must avoid suggesting superiority, inducing purchase, or offering incentives.

PRESCRIPTION (RX) PRODUCTS

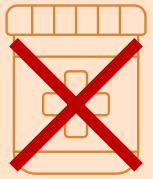


Provide Disease State Information

Education can include disease state information, medication safety, the role of Rx drugs in therapy, and general medication management

No Promotion

Direct public advertising or promotion of prescription drugs is strictly prohibited under Canadian law



You may not

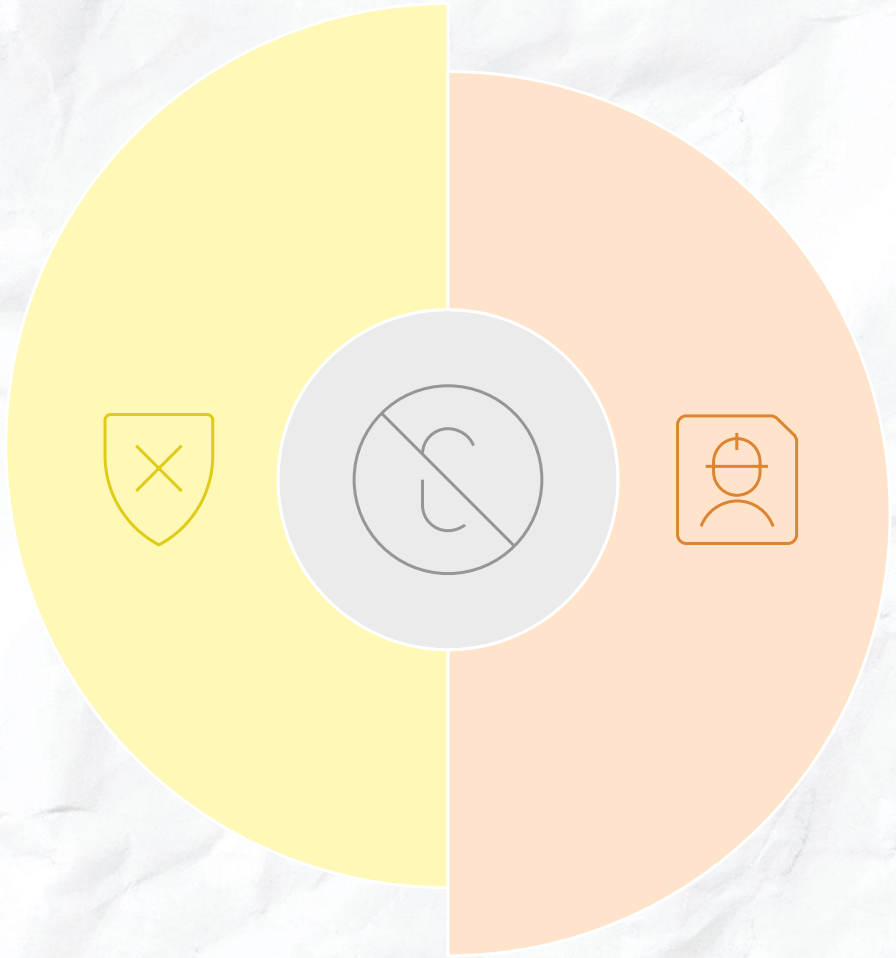
- Discuss specific prescription drug brands.
- Offer samples or incentives to encourage requests for specific prescriptions

You may not

Suggest prescribing or promote the use of any Rx medication to the general public.

COMPANY ROLL-UP OR DISPLAY

Not permitted for Rx products: No promotional materials, branded roll-ups, or direct advertising for individual prescription drugs can be displayed or distributed at public events.



Any educational material provided must avoid naming specific products or implying their endorsement.

SUMMARY OF KEY RULES

Product Type	Speaker Content	Company Roll-Up Display
Non-Prescription/OTC	Health info, safe use, product types. Brand names may be mentioned with caution, but no inducement.	Permitted if factual, balanced, non-promotional, and bilingual
Prescription (Rx)	Disease info, safe medication use. Absolutely **no direct product mentions or promotion.**	**Not permitted**—no Rx brand promotion or advertising at public events.

RESOURCES

1. https://www.ocpinfo.com/practice_resource/patient-relationships/
2. https://www.pharmacists.ca/cpha-ca/assets/File/education-practice-resources/6-PharmacistsRoleCannabisandPatientCareinPharmacy.pdf
3. https://www.ocpinfo.com/wp-content/uploads/documents/Code_of_ethics_consultation_combined.pdf
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