"We don't care what the evidence shows, we are going to show you the evidence"

Mike Kolber (circa 2012)

Top Studies of 2024: Game Changers and Head Scratchers

Tina Korownyk, Adrienne Lindblad, Mike Allan

PEER PATIENTS EXPERIENCE EVIDENCE RESEARCH

THE COLLEGE OF FAMILY PHYSICIANS OF CANADA | LE COLLÈGE DES MÉDECINS DE FAMILLE DU CANADA

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Faculty/Presenter Disclosure - Mike

Speakers Bureau/Honoraria:

- Provincial chapters of the CFPC including NLCFP, ACFP; University CPD departments including UBC; Hospital/health regions/ gov bodies like St Pauls, Sharp HMO, WCB (AB, BC), RxFiles.
- Nothing from the Drug Industry

Consulting Fees: **N/A**

Grants/Research Support: **Funding for clinical trials (BedMed) - Canadian Institute of Health Research (CIHR), Partnership for Research& Innovation (PRIHS)**

Patents: **N/A**

Other: **Salary - CFPC, Honorarium from BS Medicine Podcast**

Faculty/Presenter Disclosure: Adrienne Lindblad

- Speakers Bureau/Honoraria: Alberta College of Family Physicians, Saskatchewan College of Family Physicians, Alberta Pharmacists Association, University of Saskatchewan, PEER, MEME, CSHP-BC, CSHP-SK. No Industry.
- Consulting Fees: **N/A**
- Grants/Research Support: **N/A**
- Patents: N/A
- Other: Salary – **College of Family Physicians of Canada**

Presenter Disclosure

- **Faculty/Presenter: Tina Korownyk**
- **Relationships with commercial interests:**
  - **Grants/Research Support: CIHR, PRIHS**
  - **Speakers Bureau/Honoraria: CFPC, Provincial colleges**
  - **Consulting Fees:** None
  - **Other:** Employed by the UofA

Objectives

MA

What's New

Describe novel interventions or diagnostic information relevant to family medicine.

What's True

Describe newly confirmed/proven interventions or diagnostic information relevant to family medicine.

What's Poo

Reconsider interventions that may have received undue/excess attention.

What's New,

What's True,

What's Poo

YAWNS: Reducing Sleep Aids

565 chronic benzo users (sleep), randomized to Sleepwell (cover letter & 2 booklets) or Empower (2 booklets) or none.

age 72, 36% male, 89% driving (11 yrs on benzo, 5.7mg/d diazepam equiv).

At 6 months:

Stopped: 26% vs 20% vs 8% (more people used CBT-I in Sleepwell)

Stopped or reduced dose (≥25%): 47% vs 35% vs 20%

Minimal effects on other sleep outcomes (like sleep time, severity index etc)

Bottom-Line: Simple intervention for regular sleep med user can help people stop or reduce medication use (NNT~4)

JAMA Psychiatry. doi:10.1001/jamapsychiatry.2024.2731

Snappers: Back to the Basics for Back Pain

Walking & low back pain recurrence

- 701 pts with LBP in last 6 months
- Walking (physio guided) vs control
- Days to limiting recurrence : 208 vs 112 (28% RRR x1 yr)

Bottom-Line: Walking (exercise) can reduce recurrence of LBP. **You say Pain, I say Activity**

Placebo & Low Back Pain (101 LBP pts)

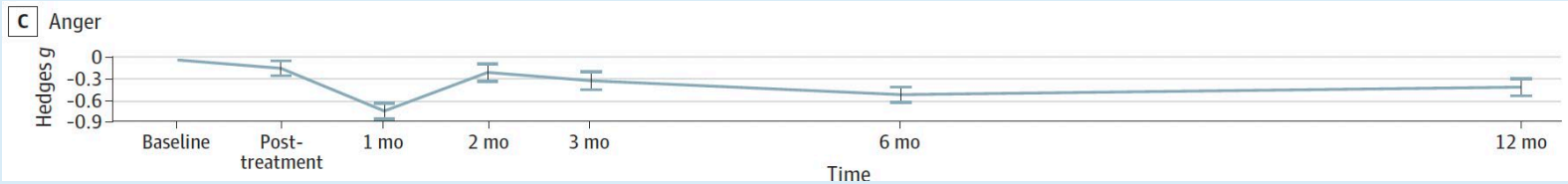
- SQ 1 ml saline in most painful spot
- Told placebo & coached

1 month, pain ~1.4 better vs ~0.8 usual

Over 12 months: No diff in pain

- Depression, anxiety, etc better.

Bottom-Line: Honest placebo injections (+ selling) may be helpful.



Lancet 2024; 404: 134–44. JAMA Network Open. 2024;7(9):e2432427. doi:10.1001/jamanetworkopen.2024.32427

Methotrexate (MTX) for Osteoarthritis

Knee OA (PROMOTE RCT)[1]

155 pts (36% male, 61 y.o.) oral MTX (25mg/wk) or placebo x 6 months:

- Mean knee pain: baseline **6.4** to **5.1** vs **6.8** to **6.2** placebo (**diff 0.8**)
- Stiffness & function: favor MTX
- Responder: 34% vs 20%
- Serious AEs: no difference

Hand OA (METHODS RCT)[2]

97 pts + synovitis (30% male, 61 y.o.), oral MTX (20mg/wk) or placebo x 6 mos.

- Mean pain scale change: 15mm MTX vs 8 in placebo; Diff ~10 (adjusted)
- Pain & stiffness: Favor MTX
- Adverse events: no difference

folic acid 5mg od x6d/w

Bottom-Line: Methotrexate may improve pain and stiffness in knee or hand osteoarthritis patients when conventional medications are ineffective. Adverse events were similar to placebo.

1) Ann Intern Med. doi:10.7326/M24-0303; 2) Lancet 2023; 402: 1764–72

Polling Question #1

The following medications are standard for post-MI management. However, which one has emerging uncertainty regarding its impact on patient-important outcomes?

A) Antiplatelet agents (e.g., ASA)
B) ACEI
C) Beta-blockers
D) Statins

Snappers: Beta-Blockers Post MI with Preserved EF- UPDATE

ABYSS[1]

- 3698 pts, MI Hx (~3 yrs) + EF≥40%: interrupt BB or continue (64y.o.)
- Death + CVD: 24% vs 21%, not non-inferior, at 3 yrs
  - Death, MI, stroke: similar
  - CVD hospital: 19% vs 17%
- QOL: no different

REDUCE-AMI[2]

- 5020 pts, acute MI + EF≥50%, & early angiography: BB vs no (65 y.o.)
- Death or MI 3.5 yrs: 7.9% vs 8.3% (ns)
- Secondary end points: no difference

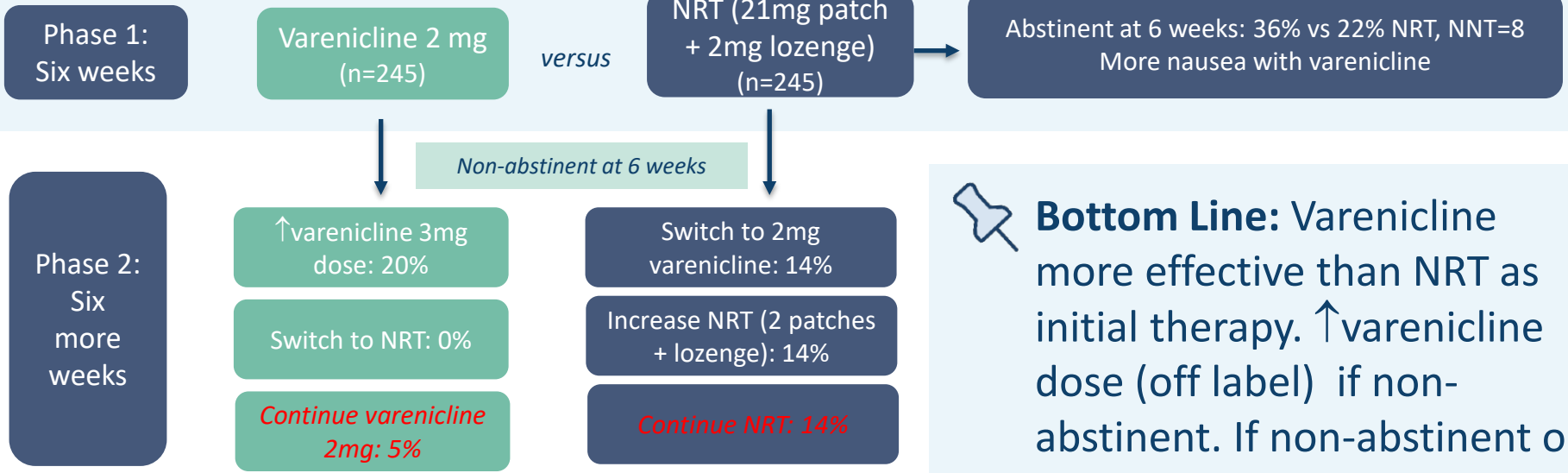
Bottom-Line: Beta-blockers do not appear to impact death/MI but uncertainty for CVD hospitalization. 3 RCTs ongoing.

PEER PATIENTS EXPERIENCE EVIDENCE RESEARCH

1. NEJM DOI: 10.1056/NEJMoa2404204. 2. NEJM 2024; 390; 1372-81.

Smoking Cessation – Adapting Therapy

RCT (n=490): 48 y.o.,~20cig/d, duration smoking: 28 yrs



Bottom Line: Varenicline more effective than NRT as initial therapy. ↑varenicline dose (off label) if non-abstinent. If non-abstinent on NRT, anything.

JAMA 2024; 331(20): 1722-31.

Continued Treatment with Tirzepatide

670 pts, BMI ≥30
(48 y.o., 107 kg (BMI 38), 29% male)

36-wk open label Tx,
then 52-wk withdrawal trial

Continue tirzepatide (10-15 mg SC wkly)
vs placebo

During 36-wk: mean wgt loss 21%

Next 52 weeks

- Mean wgt change -6% (tirzepatide) vs +14% (placebo)
- Maintain ≥80% wgt lost: 90% vs 17%

OTHER: 1 yr of Tirzepatide in:
- NASH: NNT 2-4 (varies by outcome/dose)
- Sleep Apnea:Mean apnea/hypoapnea episodes from ~50/hour to 20-25 vs 45/hr.

Bottom-Line: Within 1 yr of tirzepatide discontinuation, patients regain ~2/3 of their original weight lost, vs continued weight loss with continued treatment.

Aronne LJ, et al. JAMA. 2024. N Engl J Med 2024 Jul 25;391(4):299-310. N Engl J Med 2024 Jun 21. doi: 10.1056/NEJMoa2404881.

BP Targets in Patients with High CV risk

11,255 pts, SBP 130-180, CVD or 2 risks
- 65y.o., SBP 147/83

SBP <120 vs <140mmHg (Office BP)

SBP: 119 vs 135; @ 3.4y
- Major CVD: 9.7% vs 11%, NNT=72
- Death: 2.8% vs 3.6%, NNT=125
- Composite renal: 3% vs 1.8%
- Syncope (serious): 0.4% vs 0.1%
- Serious abN lytes or hypotension: no diff

SPRINT (9361 pts):[2] SBP 122 vs 135, @ 3.3y
- Composite: 7.4% vs 8.8%,
- All-cause death: 3.3% vs 4.5%, NNT=85
- Serious: abN lytes (NNH 126); AKI (56), hypotension (106), syncope (173)

Bottom-Line: Targeting SBP<120 reduces risk of major vascular events and death in higher risk patient, similar to seen in SPRINT.

1. Lancet 2024; 404(10449): 245-255. 2. NEJM 2015; 373(22): 2103-16.

AL

Polling Question #2

Which drug class is most effective in treating acute, episodic migraine?

A) Gepants (example Ubrogepant)
B) Triptans
C) NSAIDs

Snappers: CGRP-antagonists for Migraine

Ubrogepant (vs placebo) **at migraine prodrome: crossover RCT[1]**

- Mod-severe migraine (n=518)
- Absence of moderate/severe HA
  - @24h: 46% vs 29%, NNT=6;
  - @48h: 41% vs 25%, NNT=7;
- AE: 17% vs 12%, NNH=20

Bottom-Line: Ubrogepant during prodrome can prevent mod-severe headache at 24-48h.

Atogepant for migraine prophylaxis[2]

- N=315, failed 2-4 classes of migraine prophylaxis
- ≥50% ↓ monthly migraine days: 51% vs 18%, NNT=4
- Acute meds: ↓ 2.5 days/month;
- Constipation: 10% vs 3%, NNH=15

Bottom-Line: Atogepant 60mg daily is an option for migraine prophylaxis in refractory patients.

1. Lancet 2023; 402: 2307-16. 2. Lancet Neurol 2024; 23: 382-92.

Snappers: weekly insulin

Weekly vs daily insulin in Type 2 DM[1]

- 588 pts insulin naive T2DM - once-weekly icodec + placebo or OD degluc + placebo
- A1c change @ 26 wks: 1.6% vs 1.4% degludec (Stat Diff)
- Significant hypoglycemia: 8.2% vs 4.4%
  - Severe not different

Weekly vs daily insulin in Type 1 DM[2]

- 582 pts T1DM - once weekly icodec or OD degludec (both with aspart)
- A1c change @ 26 wks: -0.47% vs -0.51% degludec (non-inferior)
- Significant hypoglycemia : 85% vs 76%
  - Severe not difference

Bottom-Line: New once weekly insulin appears to work as well as once daily insulin for lowering HgA1c in Type 1 and 2 diabetics but might cause more hypoglycemic events and will likely cost more then once daily insulin.

1. JAMA. 2023;330(3):228-237 2. Lancet 2023; 402: 1636–47

TK/
MA

Tinkering with Family Medicine

Depression Screening[1]

- 8129 screen & 1030 +ve (PHQ-9=13.5)
- RCT: 1) GP feedback, 2) GP & pt feedback 3) no feedback.
- 6 months: no diff PHQ-9 severity, % reaching MCID, QOL, satisfaction

Asthma and COPD: Case Finding[2]

- 1,182,406 phone calls (20% engaged); 49,594 resp Sx; 2857 spirometry (80% normal); 508 RCT specialist vs usual
- Screen ~4000 for 1 less resp visit/yr
- No diff in hospital visits, ER visits, QOL

Kidney Guideline Adherence[3]

141 practices (11K pts with CKD/BP/DM)
No diff in any outcome except more
12.7% vs 11.3% acute kidney injury

Integrating Resp Specialist care[4]

18 practices, 1242 COPD pts.
More guideline adherence.
Exacerbations same, hospital up (RR 1.9)

PEER PATIENTS EXPERIENCE EVIDENCE RESEARCH

1. Lancet Psychiatry 2024; 11(4): 262-73. 2. NEJM 2024; 390:2061-73. 3. N Engl J Med 2024;390:1196-206.
4. Thorax. 2024 Feb 15;79(3):209-218


STRANGER
RESEARCH

Everything is Awesome

- Background: lots research on swallowing coins (3-6 days to pass)
  - What about the 2nd most commonly swallowed item?
- 6 health professionals volunteered to swallow a Lego head to see how it would pass.
- Post-ingestion self-examined stool. Search technique “was decided by the participant”
- To standardize bowel habits over time, developed Stool Hardiness and Transit score (SHAT)
- Primary Outcome: Found and Retrieved Time (FART) score

J Pediatr Child Health. 2019;55:921-2

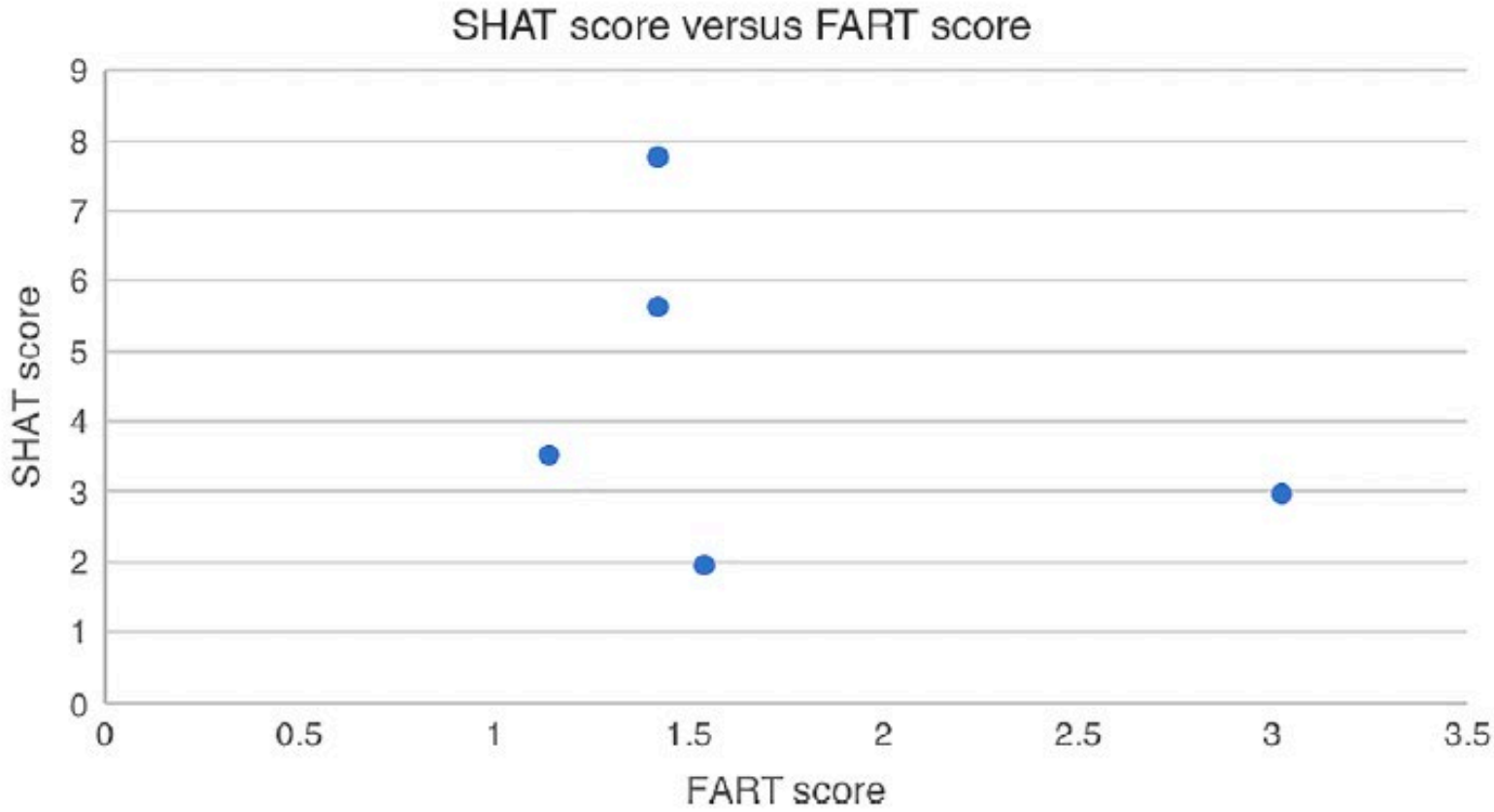
Everything is Awesome: Swallowing Lego

Table 1 Patient characteristics and data

Patient	A	B	C	D	E	F
Age	38	41	45	34	27	32
Gender	F	M	M	M	F	F
Number of stools to retrieval	2	NA†	3	3	1	1
FART score	1.42	NA	3.02	1.42	1.54	1.14
Pre-SHAT score	3.33	3	5.67	3	4.67	4.3
SHAT score	5.63	NA	2.96	7.76	1.95	3.51

†Patient B searched through 13 stools over the 2-week period. FART, Found and Retrieved Time; NA, not applicable; SHAT, Stool Hardness and Transit.

Everything is Awesome: Swallowing Lego



Coughs & Sneezes Spread Diseases
But what about Farts?

QUESTION

An Operating
operating the
environment?

INTERVENTION

A colleague c
wind onto tw
each. First fu

RESULTS

Overnight the
of two types
gut and on the skin

"There is no evidence that you can spread germs through flatulence, unless feces is present," says Dr. Quigley.
If it gives you comfort, think of your clothing as a mask for your bottom. Just to be safe, keep your pants on, for all our sakes.

through the clothing
ut, which suggests the

enteric zone in the second
e flatus itself, and the
as caused by the sheer
blew skin bacteria from
onto the dish."

Bottom-Line: Flatus can cause infection if the emitter is naked, but NOT if they are clothed.
Don't fart naked around food and avoid your microbiologist friends may try to recruit you for their projects.

1) Bmj. 2002 Dec 21;325(7378):1449-1449. 2) https://www.houstonmethodist.org/blog/articles/2020/oct/flatulence-everything-you-wanted-to-know-about-farting