Top research studies from 2018

PEER PATIENTS EXPERIENCE EVIDENCE RESEARCH

Mike Allan: Director,

Programs and Practice Support

THE COLLEGE OF FAMILY PHYSICIANS OF CANADA

LE COLLÈGE DES MÉDECINS DE FAMILLE DU CANADA

Faculty/Presenter Disclosures

- **Faculty: Mike Allan**
- **Salary: College of Family Physicians of Canada, University of Alberta**
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Learning Objectives

- Review new studies that significantly modify present disease management.
- Discuss recent research that confirms and advances our management.
- Identify studies that got considerable coverage but may be misleading

QUIZ BREAK

ASA has been suggested to prevent cardiovascular disease and maybe cancer, like colon cancer.

What did 3 new studies find in people without past cardiovascular disease?

ASA decreased cardiovascular and cancer

ASA decreased cardiovascular disease but not cancer

ASA did not decrease either

What is new for good old ASA (100mg a day)

Group	Number x Time	Cardiovascular	Bleeds
"Moderate Risk" (age 64)	12,500 x 6 years	~4% in both arms	1% vs 0.5% (NNH 200)
Diabetic (age 63)	16,000 x 7 years	8.5% vs 9.6%, (NNT~100)	4.1% vs 3.2%, (NNH~100)
Older (age 74)	~19,000 x 5 years	3.5% vs 3.9% (ns)	3.8% vs 2.8% (NNH ~100)

- Last study- Death: 5.9 vs 5.2%: NNH=143 (Cancer Death: 3.1% vs 2.3%, NNH=125)

- **Bottom-Line: No or minimal improvements in CVD, no difference (or worse) Cancer, and bleed worse.**

[1]Lancet 2018; http://dx.doi.org/10.1016, [2]NEJM 2018; Sept 1, DOI 10.1056. ASPREE, NEJM Sept 2018 DOI: 10.1056

N-3 Fatty Acids & the Dream of Natural Therapies

- 15480 diabetics, 1000mg n-3 Fatty Acids v placebo x7.4 yrs.
  - CVD: 11.4% v 11.5% Rate Ratio 1.00 (0.91–1.09)
  - No effects on any outcome.
- ~26,000 pts x 5 yrs (primary prevention, age 67) on 1000mg,
  - No effect for CVD or cancer
- 535 patients mod-severe dry eyes oral 3000 mg of fish-derived N-3 fatty acids vs olive oil capsule x 1 yr.
  - 14 better vs 13 better (from 44/100). P=0.40
  - Other eye outcomes not statistically different.
- **Bottom-Line**: How can something this natural, not be work!?

VITAL study NEJM , ASCEND Study NEJM DREAM Group NEJM

What if we gave N-3 Fatty Acids a Facelift: Icosapent

- RCT 8179 pts, Icosapent 2gm BID, trig ~2.2-5.6, on statin
  - Mean age 64, 71% male, 58% DM, 71% past CVD
- Outcome: @5 yrs, Trigs reduced 18% (vs 2% increase).
  - LDL increased 3% vs 10%
  - All CVD: 17.2% vs 22%, HR 0.75 (0.68-0.83), NNT 21
  - Stroke, MI or CVD death: 11.2% vs 14.8%, HR 0.74, NNT 28
  - Death (all cause): HR 0.87 (0.74-1.02),
  - A Fib NNH = 72 (5.3% vs 3.9%)
- **Bottom-Line: Seems too good to be true. Hopefully this is real.**

Bhatt: DOI: 10.1056/NEJMoa1812792

Chronic Back or OA Pain: Opioid vs Other

- RCT: 240 pts (mean 58 yrs; 87% male), 1 yr, unblinded.
  - Opioids vs non (Aceta, NSAID, TCA, topical lidocaine/capsaicin, pregabalin/duloxetine, +/- tramadol. 65% back & 35% Osteoarthritis
- Primary Outcome: Function (scale or ≥30%) – No difference
  - Pain: start 5.4 down to 4 vs 3.5 (ss). ≥30%= 41% vs 54% (NNT=8)
  - QoL, visits, ED use, most measures = no difference.
  - Opioid: ≤15% pts on ≥50mg ME. Tramadol in 11% non-opioid.
  - AE: 2 vs 1 out of 19 score (ss). Discontinue med 19% vs 8%
- **Bottom-Line**: Vs opioids, other meds are same or more effective, with less adverse events and easier to tolerate.

JAMA. 2018;319(9):872-882.

QUIZ BREAK

The Low-Carb diet has received considerable attention in the last 5+ years.

Which of the following does the newest research show?

Low Carb diet decreases mortality and heart disease

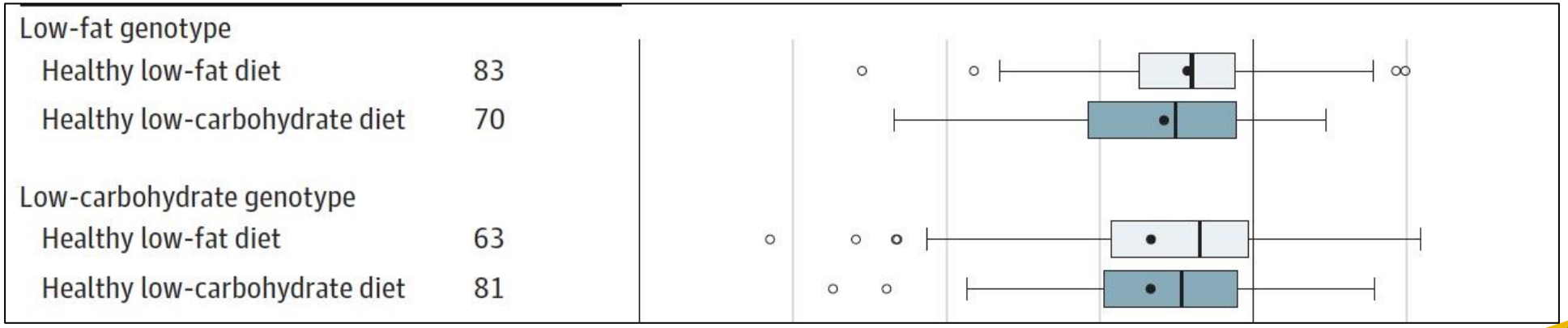
Low-Carb diet has ~11lb better weight loss (than low fat) at 1 year

Low-Carb diet works best if patients are genetically predisposed to benefit (like insulin sensitivity).

Low-Carb diet is not meaningfully different from Low-Fat at 1 year

Low Fat vs Low Carb: It's in your Jeans

- RCT 609 (mean age 40, BMI 33, 57% female)
  - 22 dietitian interventions (groups of 17)
  - ++ on genetic predisposition/insulin sensitivity
- At 1 year (q3 months): range -30 to +10kg
  - Low Fat -5.3kg vs Low Carb -6kg. No statistical difference
  - No real difference in any outcomes.



- **Bottom-Line**: Little difference between diets; & genetic testing won't help.

JAMA. 2018;319(7):667-679.

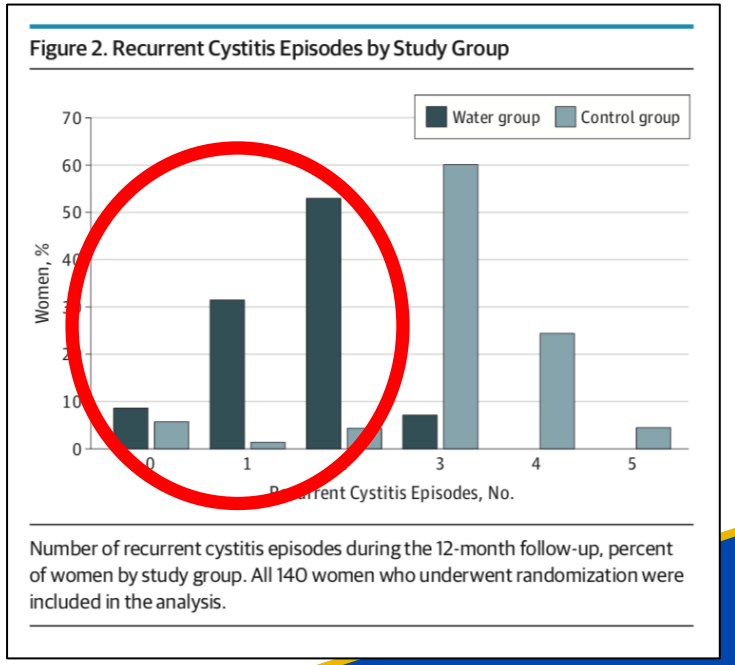
Vulvovaginal menopause symptoms: Vaginal Estradiol vs Moisturizer vs Placebo

- RCT: 302 women (mean 64 yrs) 12 wks.
  - 3 arms: Vagifem™, Replens™, or placebos.
- Primary Outcome: Most Bothersome Symptom (0-3)
  - MBS= vaginal penetration pain (63%) dryness (21%), itching, irritation & pain dryness.
  - MBS = ~2.5 baseline, all improved ~1.1
  - Vaginal Symptom Index, Female Sexual Function Index, etc. All no difference (at 4 or 12 weeks, cut-offs or mean change).
  - No difference in adverse events either
- **Bottom-Line**: Nothing worked better than placebo (gel)

Mitchell CM. JAMA Intern Med. doi:10.1001/jamainternmed.2018.0116

Recurrent UTIs and the Miracle Drug: H_2O

- RCT of 140 w recurrent UTIs (3.3/ year) + self report drinking < 1.5 litre water / day.
  - Randomized to 3 x 500cc bottled water or control x1 yr.
- Mean # UTIs: 1.7 (water) vs 3.2 controls
  - 2 or less UTIs: 93% vs 12%, NNT=2
- **Bottom Line:** In women with recurrent UTIs, encourage drinking 1.5 additional litres of water



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JAMA Intern Med. doi:10.1001/online October 1, 2018

Preventing Febrile Seizure during Same Fever

- RCT (Japan): 438 kids (age 6-60 months). 54% male, not diarrhea,
  - One seizure with fever ≥38 C (& still having this fever).
  - Given 10mg/kg of acetaminophen q6 hours (suppository) vs no therapy
- Outcome: seizure within 24 hours: 9% vs 24%, NNT=7, ($p<0.001$)
  - Use of Acetaminophen biggest predictor of seizure recurrence (over age and duration of seizure).
- **Bottom-Line: first study to show treating fever reduces recurrent febrile seizure in same fever.**
  - Prevention unclear.
  - Biases: poor randomization, no blinding, high repeat seizure risk.

Pediatrics. 2018;142(5):e20181009

Bath Additives for Eczema

- RCT (482 kids), age 1-11 (mean 5), 49% male
  - Mean POEM 10 (0-28, 8-16 is moderate).
  - Emollient Bath Additive of choice vs no additive
    - 45% Oilatum, 26% Aveeno oil, 4.5% Balneum oil, & 30% other
- Outcomes: over 16 weeks and at 1 yr.
  - ≥50% adherence to bath additive: 93% bath additive vs 8%
  - Bath Additive improved 0.41 (-0.27 to 1.1) more. MCID=3
    - Subgroup: if bath ≥5x/wk: POEM 2.3 (0.6 – 3.9) better
  - No difference in exacerbations, quality of life, steroid use, etc
- **Bottom-Line**: **Bath additives don't add to eczema treatment (*except <u>maybe</u> if there are lots of baths*).**

BMJ 2018;361:k1332

QUIZ BREAK

We have been told to check BP with more than one reading.

How much does BP fall between the first and second reading?

Systolic BP drops 15 mmHg

Systolic BP drops 10 mmHg

Systolic BP drops 5 mmHg

No BP change (takes lots of readings)

Remeasuring BP better than Treating?

- 38,620 pts with 80,864 visits: age 61yo, 41% ♂
  - Initial BP >140/90 on 31531 visits (39% of visits)

- Remeasured 26,089 of those (83% of the time)
  - BP ↓ 8mmHg systolic on average (range 2-17)
  - 36% had normal (<140/90) on repeat.
    - Just repeating BP, increased overall BP 'control' from 61% to 73%
  - In patients with initial BP 140-159: ~43% <140/90 when remeasured.

- **Bottom-Line: Remeasure BP. It will result in less meds and better BP "control" for your practice**

JAMA Internal Medicine. 2018; 178: 858-60.

Another Diabetes Guideline, Another Approach

- 6 Independent reviewers scored 6 diabetes Guidelines: NICE, ICSI, AACE/ACE, ADA, SIGN, and VA/DoD guidelines over 5 target RCTs
- 4 key Recommendations
  1. Personalize glycemic control based on discussions of benefits and harms of medicines, patients' preferences, patients' health and life expectancy, treatment burden, and costs.
  2. Aim for an A1c of 7%-8% in most patients.
  3. Consider deintensifying pharmacotherapy for those with an A1c <6.5%.
  4. Treat patients to minimize symptoms of hyperglycemia and avoid targeting A1c in patients with a life expectancy <10 years due to advanced age (≥80 years), residence in a nursing home, or chronic conditions (like dementia or CHF): harms outweigh benefits here.
- **Bottom-Line**: A1c target recommendations vary considerably among guidelines (<6.5%, <7% & 7-8%). Lower targets often based on weaker evidence .

Ann Intern Med. 2018;168:569-576.

And now for something completely different,…

Ig Noble Medicine Prize: Self-Colonoscopy

- Why? Could be a valuable research tool,

- Cecum in 4 minutes (3 more times over 2 months, all within 1 minute of first session).
  - **"only mild discomfort”**

- Conclusion: ‘In our ‘‘personal’’ experience, self colonoscopy proved not only possible but simple and efficient.’

GASTROINTESTINAL ENDOSCOPY 2006; 63 (1): 119-120.

The End

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