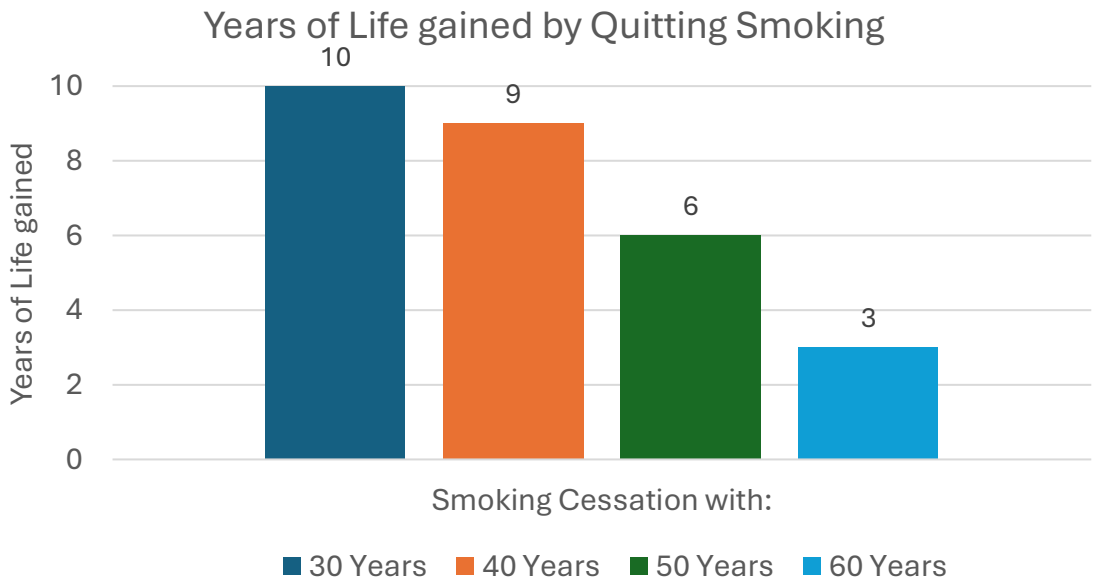
Today, we're covering a 'classic,' a recent BMJ study, and a common recommendation for patients. Enjoy!

#1 First Things First

What is the most cost-effective measure in all of medicine?
Unfortunately, I don't know of any study that can objectively and robustly answer this question. However, I do have a clear favorite: talking briefly about smoking with patients once a year!
Many doctors don't believe this is helpful. So how could it possibly be the "most cost-effective" medical measure? Here's some data:

Is it effective to talk briefly about smoking with patients?
Yes. A 2013 Cochrane Review showed that this conversation results in **about 2%** of patients quitting smoking (measured after 6 months or more). This small number may be discouraging for many doctors, but it can also be interpreted differently: you only need to talk to **50 patients** briefly about smoking for one additional person to quit, gaining several more years of life. That's about **2 hours of conversation for around 50,000 hours of life gained**... If you know of a more sensible or cost-effective medical intervention, please let me know. :-)

Does it still pay off if older patients quit smoking?
Yes. The famous „British Doctors Study" followed 34,000 smoking and non-smoking doctors for 50 years (since 1951). Smokers died on average **10 years earlier**. However, quitting smoking was always beneficial:



Doctors who quit by the age of 40 had almost the same life expectancy as those who had never smoked!

Which "Brief Advice" method is most effective?
A 2021 RCT from Germany investigated 69 general practitioners, randomly assigned to either the 5A method or the shorter ABC method. Both groups had more frequent smoking cessation discussions with their patients (though GPs using the shorter ABC method had non-significantly more; p-value 0.08). The essence of the ABC method:

- **Ask**: Do you smoke? Do you want to quit? Ask at least once a year.
- **Brief Advice**: Clearly recommend quitting; address health/financial concerns.
- **Cessation Support**: Offer seminars, quitlines, nicotine replacement, etc.

Many patients set New Year's resolutions to quit smoking. Hopefully, many doctors also make the resolution to talk about smoking with their patients at least once a year! One day, this should also be well reimbursed...

#2 SGLT-2 Inhibitors in Heart Failure

SGLT2 inhibitors are the new stars of medications. In the last five years alone, over 8,000 publications on them have been indexed on PubMed. They've also shown effectiveness in chronic heart failure in several RCTs:

- *DAPA-HF* (2019): **Dapagliflozin** in **HFrEF** patients reduced cardiovascular deaths or hospitalizations by **26%** (95% CI 0.65-0.85)
- *EMPEROR-Reduced* (2020): **Empagliflozin** in **HFrEF** patients reduced cardiovascular deaths or hospitalizations by **25%** (95% CI 0.65-0.86)
- *EMPEROR-Preserved* (2021): **Empagliflozin** in **HFpEF** patients reduced cardiovascular deaths or hospitalizations by **21%** (95% CI 0.69-0.90)
- *DELIVER* (2022): **Dapagliflozin** in **HFmrEF/HFpEF** patients reduced cardiovascular deaths or hospitalizations by **18%** (95% CI 0.73-0.92)

However, the data aren't entirely clear. Empagliflozin in HFrEF/HFpEF and Dapagliflozin in HFmrEF/HFpEF were able to significantly reduce the "composite endpoint" (cardiovascular deaths or hospitalizations) and hospitalizations, but the reduction in cardiovascular deaths alone was **not significant**. Dapagliflozin reduced also deaths in HFrEF patients **significantly**.

As always, the question arises whether the successes in controlled clinical trials can be transferred to real-world scenarios. This was recently examined in a register study from Denmark, published in the BMJ in November:

- **Study design:**
  - Intervention group: 6,800 HFrEF patients with SGLT2 inhibitors (80% Dapagliflozin, 20% Empagliflozin)
  - Control group: 14,700 HFrEF patients receiving other standard treatment
- **Results:**
  - **25% fewer deaths** (95% CI 0.66-0.85) in the SGLT2i group
  - Hospitalizations due to heart failure were unchanged

Observational studies are less definitive than RCTs, as patients receiving SGLT2 inhibitors may differ from those not receiving them in other ways. Still, this real-world study offers additional reinforcing evidence for the efficacy of SGLT2 inhibitors.

#3 How Much Water Should You Drink?

“Drink more water.” Everyone seems to know that it’s healthy and good for the kidneys. But is that actually true?

In November, a systematic review of 18 studies (mainly RCTs) was published. It found a statistically significant relationship between water intake and **only two outcomes**:

- Four studies showed **greater weight loss** when 1.5L of water was consumed before meals. However, these studies were too short to show long-term effects (as is often the case in obesity studies).
- Two studies showed a **lower risk of kidney stones** with increased water intake. One of these studies randomized over 200 patients and lasted five years. However, further studies to confirm this result would be useful.
- Other investigated conditions, such as increased fluid intake in chronic kidney disease, urinary tract infections, headaches, or diabetes, showed **no significant effects**.
- Many of these studies were too small to detect clinically relevant effects. When it comes to “water” studies, there’s likely little industry funding…

What does this all mean? As nephrologist Dr. F. Perry Wilson from Yale so nicely puts it: "I remain certain that you should drink more than zero liters and less than 20 liters every day… Drink when you’re thirsty. Drink a bit more if you’d like.”

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