Alberta Branch

# Fast Five:
# *A Research Showcase*

By: Emily Cowley, PharmD | May 13, 2021

# Presenter Disclosure

- I have no current or past relationships with commercial entities
- I have received no speaker’s fee for this learning activity

# Commercial Support Disclosure

- This program has received no financial or in-kind support from any commercial or other organization

# Outline

- CSHP AB Branch Initiative
- ‘Fast Five’ Showcase

# #1

# Anticoagulants in Obesity

# Anticoagulant Therapies and Outcomes in Obese Patients with acute DVT

By: Steven Quan, Jenna Smith, Cynthia Wu, Sheri Koshman, Binh Nguyen, Tammy Bungard

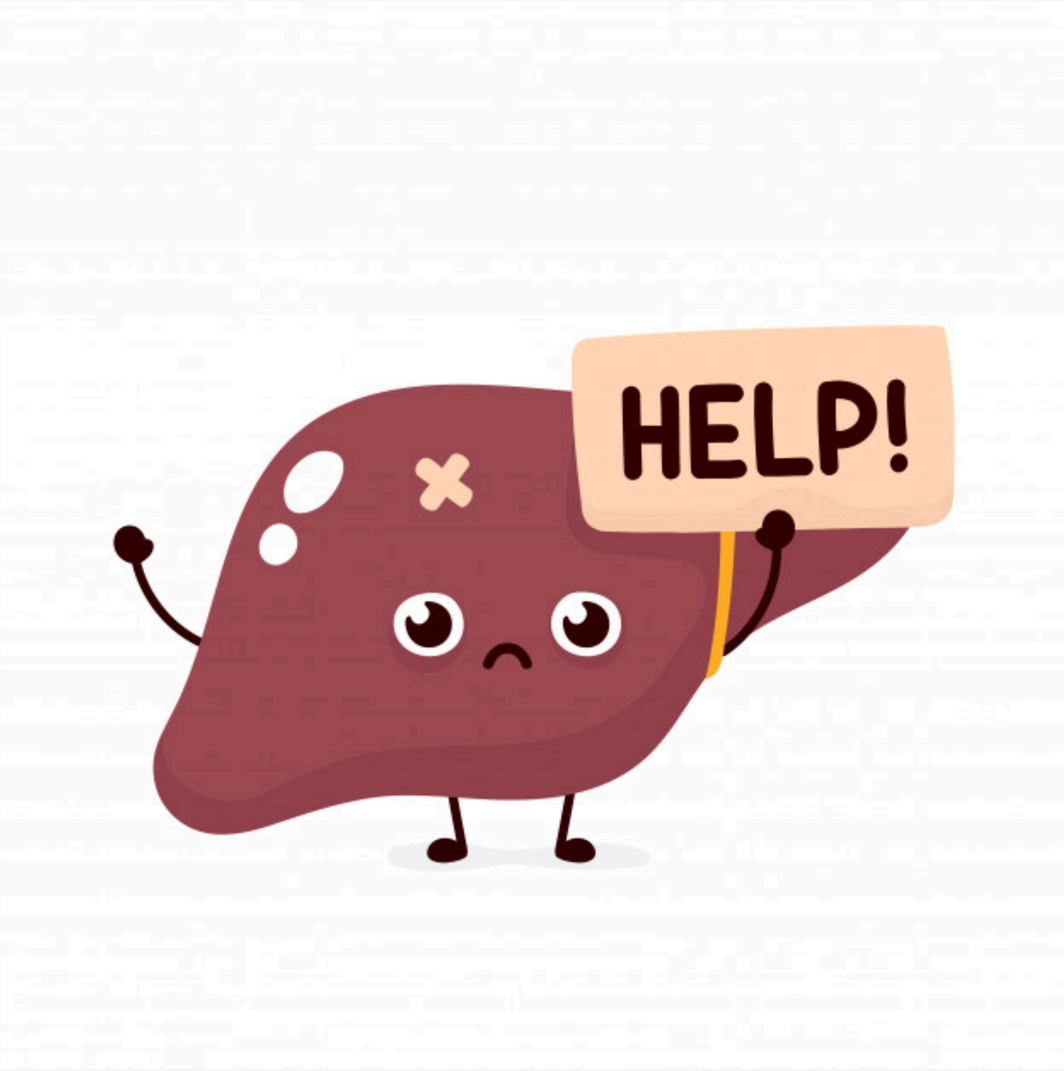
- International Society on Thrombosis and Haemostasis (ISTH) suggests **against** the use of DOACs in BMI >50 kg/m² or >120kg due to limited clinical data
- Retrospective chart review from 2014 to 2017 in patients discharged with an acute DVT or PE
  - 187 patients included with a weight >120kg (median: 140kg)
  - Primary Outcome: overall rate of VTE at 1 year -> 0.006 events/patient year
- ~60% on a DOAC in first 3 months; ~30% of patients had therapy switches
- Similar rates of bleeding between DOACs and 'traditional' therapy

**Bottom Line:**
Best available clinical data does not suggest worse outcomes in comparison to warfarin or 'normal' body weights in VTE (up to ~140kg)

Quan S, et al in Thrombosis Research, 2020;187:56-62.

# #2

# GI Bleeds & Vitamin K Use



# Re-bleeding in Variceal and Non-variceal GI Bleeds in Cirrhotic Patients using Vitamin K1

By: Duane Bates, Jenny Edwards, Ashten Langevin, Adrian Abu-Ulba, Faith Yallou, Ben Wilson and Sunita Ghosh

- Most common cause of UGIB in cirrhosis patients is gastroesophageal varices
- Retrospective study in Calgary from Jan 1, 2014 to December 31, 2016
    - Primary objective: describe incidence of rebreeding at 30d
    - Included 243 patients who received vitamin K vs. 127 patients did not
- Most common dose: 10mg IV or PO
- **Rate of re-bleeding within 30d:** 16.5% in vitamin K vs. 5.5% in non-vitamin K (p=0.003)

**Bottom Line:**
White vitamin K may correct abnormal coagulation tests, this study suggests vitamin K1 does not reduce the incidence of re-bleeding at 30d.

# #3

# Rifampin & Warfarin

# A Case Series of the Rifampin-Warfarin Drug Interaction

By: Charlotte Yang, Rosaleen Boswell, Tammy J Bungard

- Rifampin induces numerous CYP enzymes which include those involved in warfarin metabolism
- Retrospective review from 2005 to 2019 including 10 patients managed by the Anticoagulation Clinic in Edmonton
- Majority of patients were mechanical valve replacements and received rifampin 900mg/d for endocarditis treatment or prophylaxis
- Overall warfarin dose increase of 165% at 30 days with onset; median decrease of 67% at offset by 4 wks
- INR monitoring twice per week during the first few weeks of onset/offset
- Most returned to baseline warfarin dose (3/8 required higher requirements post-rifampin)

**Bottom Line:**
Rifampin-Warfarin drug interactions require close monitoring in order to manage warfarin dose requirements.

Yang C, et al in Eur J Clin Pharm, 2021;(77):341-348.

# Practical Warfarin Dosing Recommendations

Onset phase

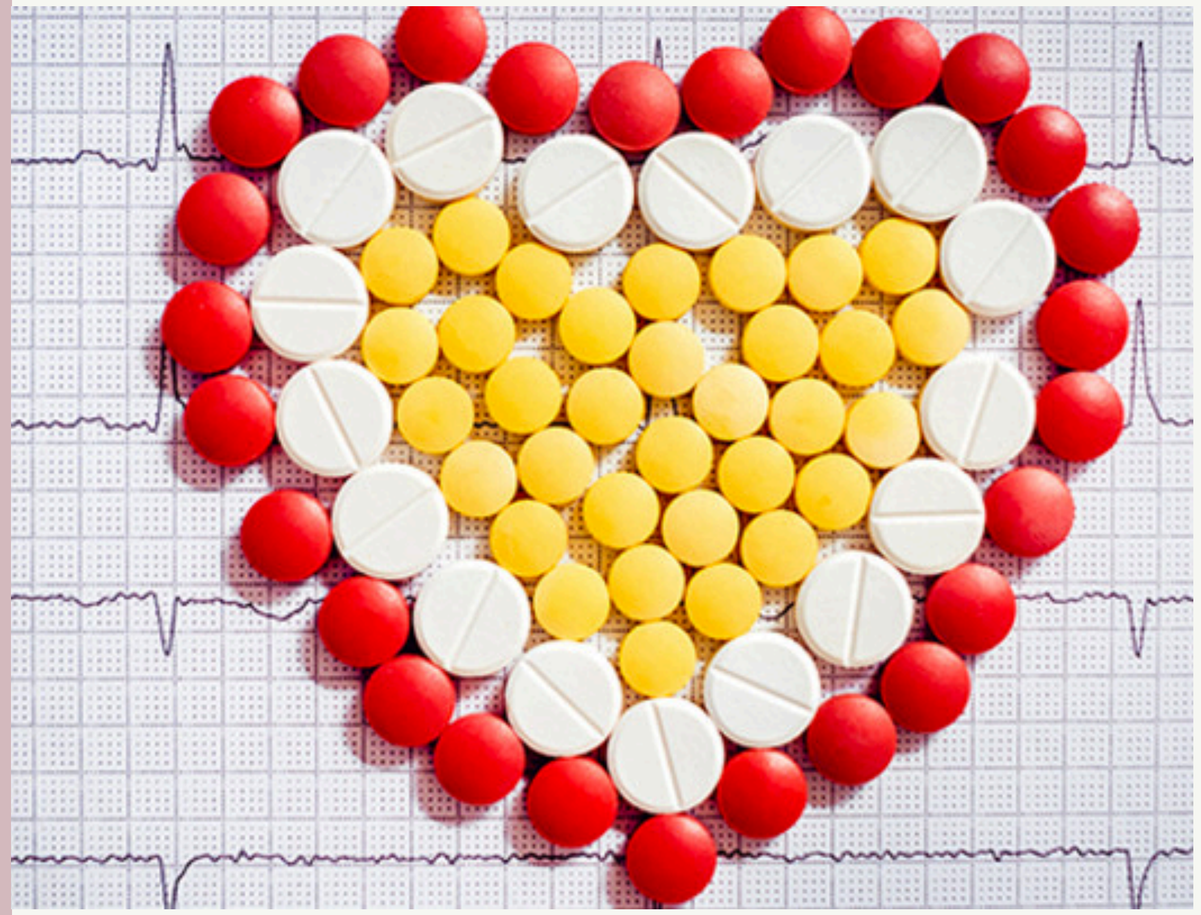
- Week 1—if hospitalized, use daily INRs to guide warfarin dosing, rather than empiric reductions
- In the outpatient setting, monitor INRs at least twice a week in week 1 and 2, then weekly until warfarin steady state achieved
- Week 1 to 2—anticipate warfarin dose increases from 30 to 80%.
- Week 2 to 4—anticipate more variability with increase warfarin doses, with those having lower proportionate increases week 1 to 2 requiring greater proportionate increases, with a range of 20–100% increase
- Warfarin steady state should be achieved at 4 weeks, with a ~ 150% increase in warfarin from baseline, although this may take longer if long hospitalization or more acute illness

Offset phase

- Monitor INRs at least twice per week at week 1 and 2, then up to weekly by week 4
- Week 1—empirically decrease warfarin dose by 15–25%
- Week 2—empirically decrease warfarin dose by 15–25%
- Weeks 3 and 4—anticipate decreases in warfarin by a further 20%
- Warfarin steady state should be achieved at 4 weeks, with a ~ 67% decrease in dose, although this may take up to 8–9 weeks in some patients
- Following this DDI, some patients may require a higher baseline warfarin dose than their pre-rifampin baseline warfarin dose, with a range of 10–50%

# #4

# ASA for Primary Prevention



# Use of low-dose ASA for CVD prevention

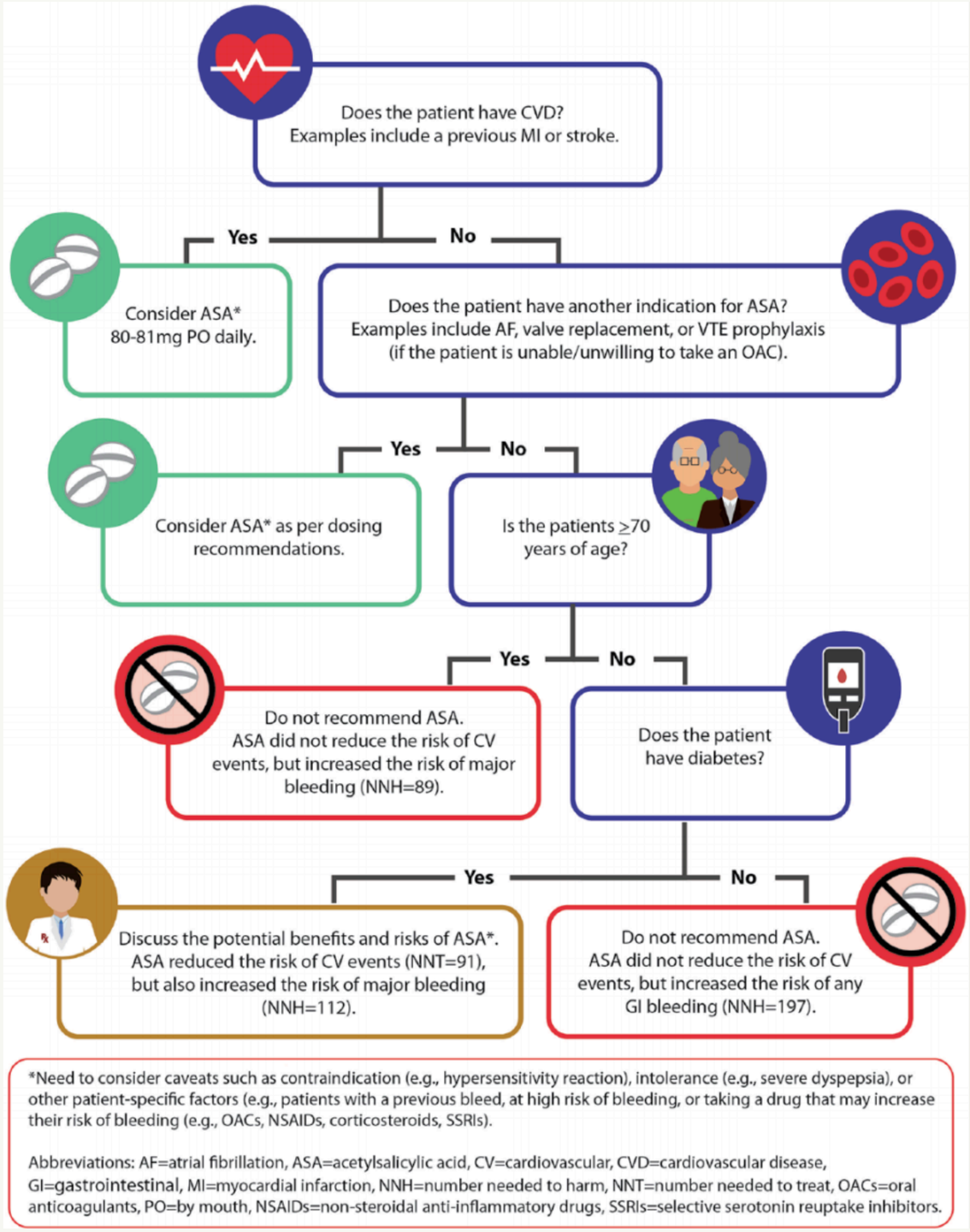
By: Arden Barry, William Semchuk, Ann Thompson, Marlys LeBras, Sheri Koshman

- ASA is recommended in patients with established CVD (secondary prevention)
- Variable ASA doses, treatment duration and potential for CV r
- 3 RCTs investigated ASA in patients without CVD
  - In patients >70Y, ASA did not reduce CVD events but increased bleeding (ASPREE)
  - In patients >40Y + T2DM, ASA reduced CV events but increased risk of major bleeding (ASCEND)
  - In patient at *intermediate* CV risk, ASA did not reduced CVD with increased GI bleeding

**Bottom Line:**
In general, ASA is not beneficial for prevention of CV events in patients *without* CVD. Shared decision making is encouraged to discuss the benefits and risks of ASA in primary prevention.

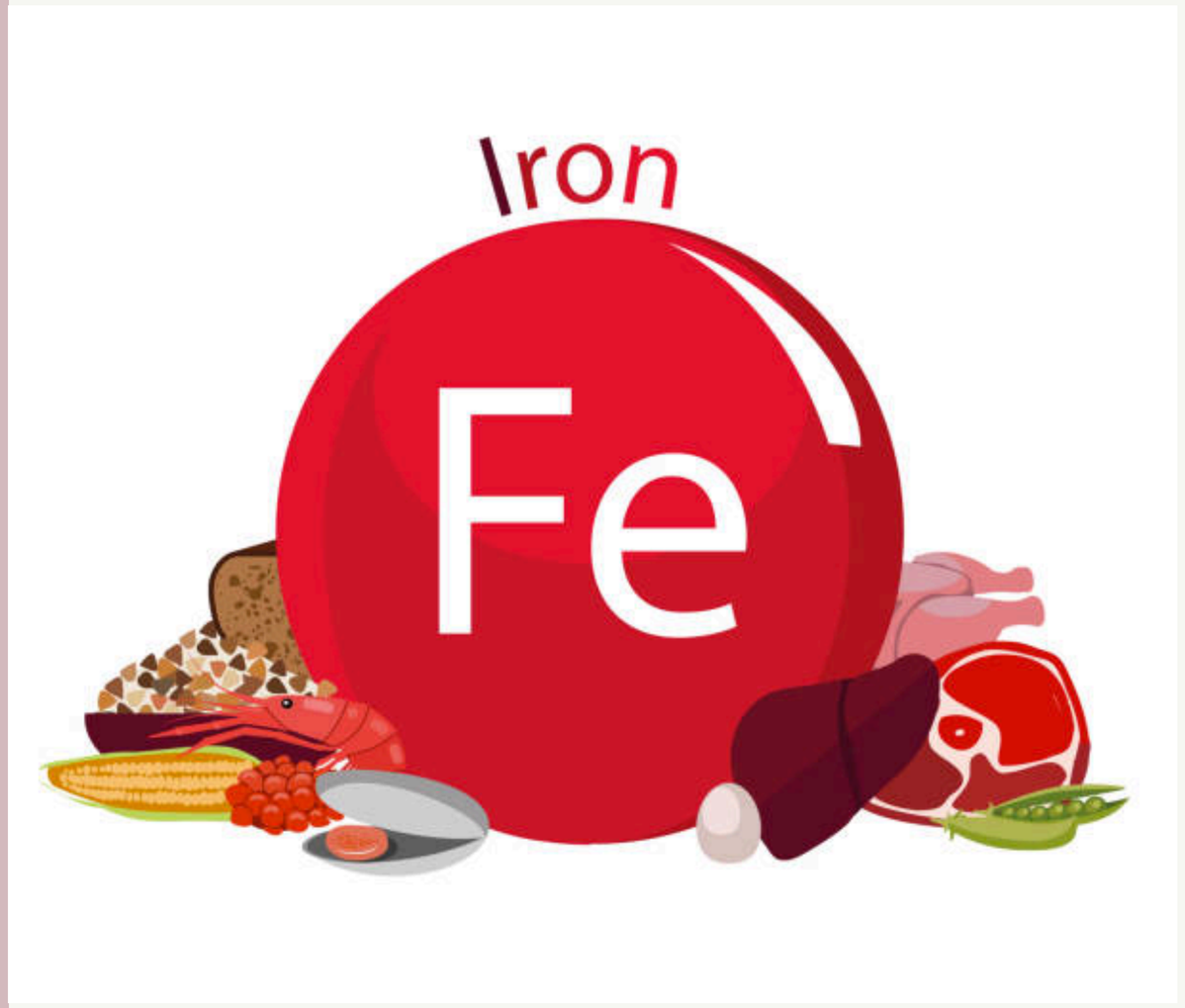
Barry AR et al, Can Pharm J (Ott). 2020;153(3):153-160.

# Step-wise Algorithm to Assess the Appropriateness of ASA



# #5

# IV Iron Administration



# Patient Factors Associated with Prescribing Iron for IV Administration

By: Thomas Brownlee, Deonne Dersch-Mills, Ginny Cummings, Tanya Fischer, Rhonda Shkrobot, Jeremy Slobodan & Jenny Wichart

- Expenditures in AB of IV iron have increased and represent ~5% of the annual acute care drug budget
- **Primary Objective**: describe the population who IV iron was dispensed from from acute care facilities
- Retrospective review from March 1-December 31, 2018 included 1352 patients
    - 97% received iron sucrose 300mg per infusion
    - Before first infusion: median Hb 92, MCV 81, Ferritin 18
    - 17.2% had oral iron dispensed within 90d before first IV iron dose

**Bottom Line:**
Half of included patients met the lab criteria for diagnosis of IDA per the 'Toward Optimized Practice'. Educational tools and stewardship initiatives are needed to ensure optimal prescribing.

Brownlee T et al,CJHP. 2021;74(1):50-56.

# Thank You!

tcharroi@ualberta.ca

emily.cowley@albertahealthservices.ca