VTE PROPHYLAXIS IN MEDICALLY ILL PATIENT

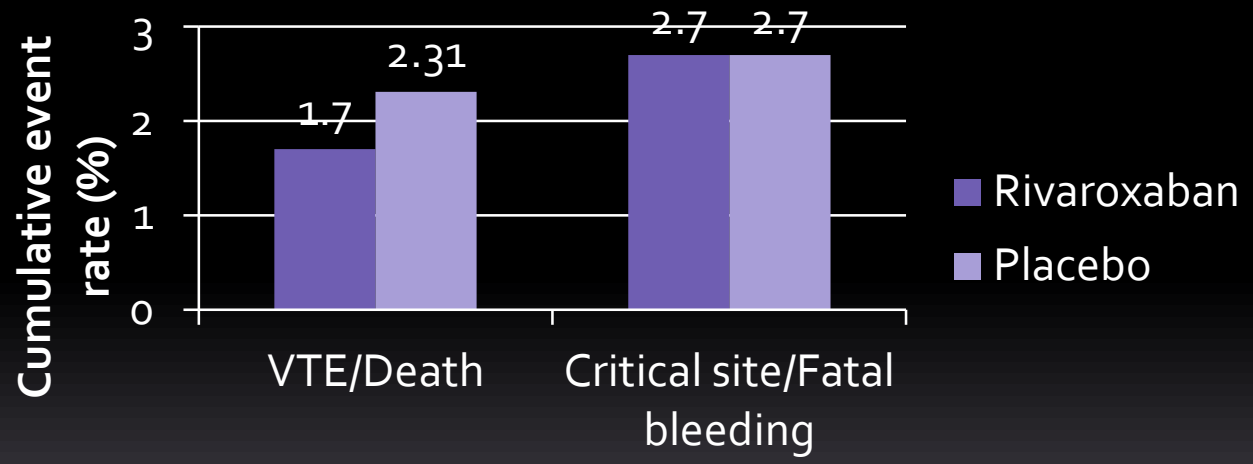
A 66 years old lady admitted in CCU for acute heart failure with history of chemotherapy for breast cancer within last 2 months

- In clinically ill patients, majority of VTEs occur after discharge

	Rate of symptomatic VTEs	% of VTEs occurring post discharge
Amin 2012	3.3 %	57 %
Improve study	1.2 %	45 %
Pendegraft 2013	1.1 %	57 %
Heit 2017	2.8 %	75 %

- However, less than 10% of patients receive VTE prophylaxis at discharge

- Pooled analysis of MAGELLAN & MARINER trials for extended use of rivaroxaban as VTE prophylaxis showed;
- 22% Risk reduction of major VTE or death



Definition of acutely ill medical patients

- Adults ≥ 40 years with moderate or severe immobility and hospitalization for the following acute medical conditions:
- Heart failure
- Acute ischemic stroke
- Acute respiratory insufficiency
- Acute inflammatory rheumatic diseases
- Acute infectious diseases

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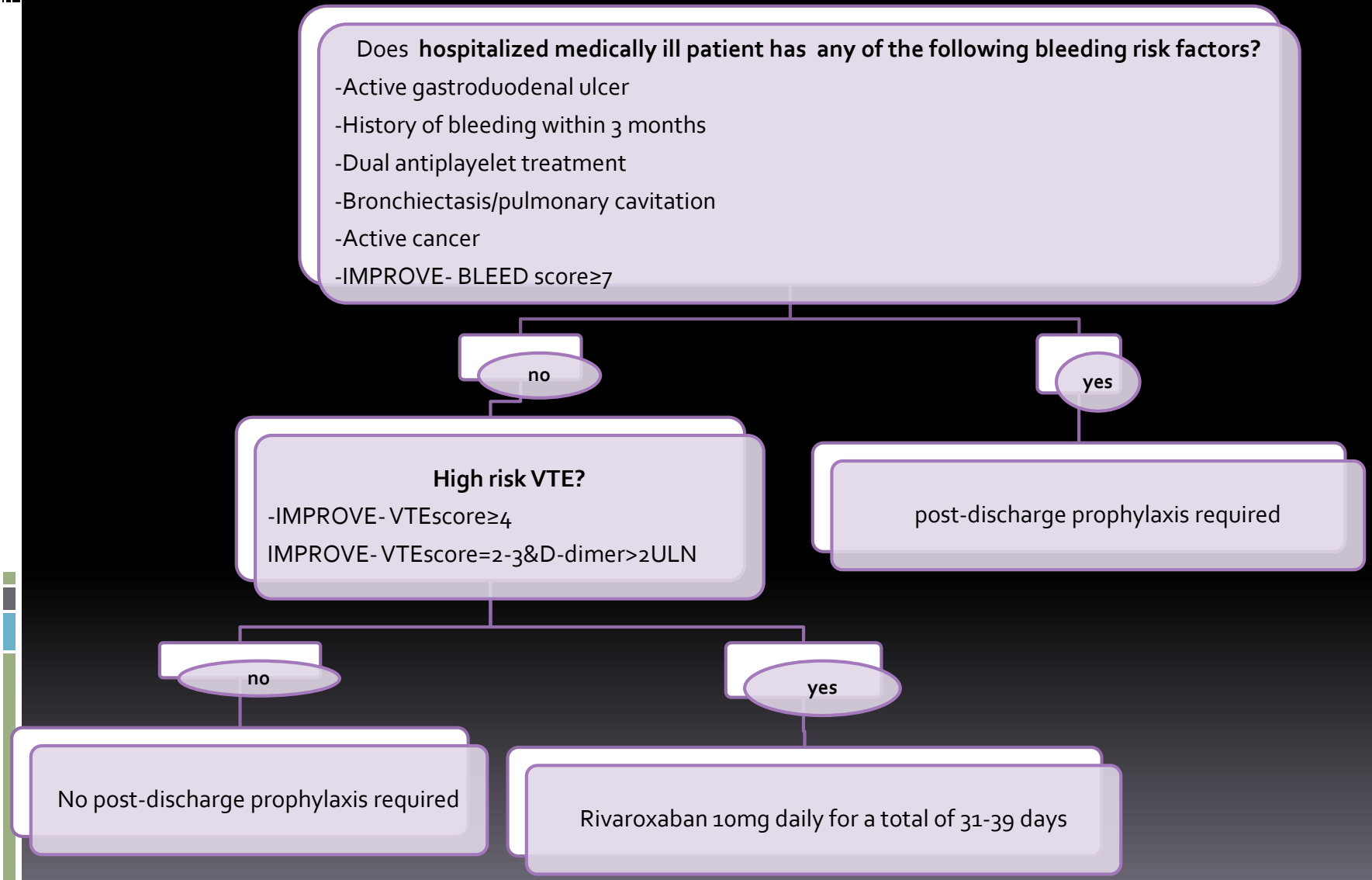
- Also had ≥1 additional VTE risk factor, including:
  - ≥75 years
  - Prolonged immobilization
  - History of cancer
  - History of VTE
  - History of heart failure
  - Thrombophilia
  - Acute infectious disease contributing to hospitalization
  - BMI≥35 kg/m2

VTE risk assessment and prophylaxis strategies for hospitalized medically ill patients prior to discharge



IMPROVE- VTE Risk Factors	Score
Prior episode of VTE	3
Thrombophilia	2
Paralysis of the lower extremity during the hospitalization	2
Current malignancy	2
Immobilization for at least 7 days	1
ICU or CCU admission	1
Age > 60 years	1

IMPROVE- BLEED Risk Factors

		score
Age	≥85 years	3.5
	40-84 years	1.5
	<40 years	0
Gender	Male	1
	Female	0
Kidney Function	Normal Kidney Function (GFR≥60 ml/min/m2)	0
	Moderate Kidney Failure (GFR30-59 ml/min/m2)	1
	Severe Kidney Failure (GFR<30 ml/min/m2)	2.5
Liver Function	Normal Liver Function (INR≤1.5)	0
	Liver failure (INR>1.5)	2.5
Platelet	≥50x10^9/L	0
	<50x10^9/L	4
Admission to ICU or CCU		2.5
Central venous catheter		2
Active gastric or duodenal ulcer		4.5
Prior bleeding within the last 3 months		4
Rheumatic disease		2
Active malignancy		2

Rivaroxaban FDA Label

Venous thromboembolism prophylaxis in acutely ill medical patients and not at high risk of bleeding:

- Maintenance:31-39 days
- Rivaroxaban 10mg once daily

Including hospitalization period and post discharge

VTE Prophylaxis in COVID-19

- 32% prevalence of VTE in COVID-19 patients
- In critically ill patients with COVID-19 infections, DVT screening at days 5-10 of admission yielded a 32 % prevalence of VTE.

- In 25 patients with COVID-19 , during ICU stay:
  - 5 patients : Pulmonary embolism
  - 6 patients : Proximal DVT
  - 3 patients : Both

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Related to COVID-19 patients

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Rivaroxaban for thromboprophylaxis among patients recently hospitalized for acute infectious diseases

- A subgroup of MAGELLAN study showed:
- 32% relative risk reduction in VTE-related events vs. placebo

Extended post-hospital VTE prophylaxis in COVID-19 high risk patients

Elevated risk of VTE in COVID-19 out patients:

- Reduced mobility
- Active cancer
- Prior DVT
- Hormone use
- Obesity (BMI>30)
- D-dimer level> 2 times upper limit of normal
- Not at high risk of bleeding

Acutely ill medical COVID-19 patients

- In high risk COVID-19 patients who are discharged from the hospital and not at high risk of bleeding, extended post-hospital VTE prophylaxis

(Rivaroxaban 10mg once daily) should be considered up to 45 days.


THANKS FOR YOUR ATTENTION