

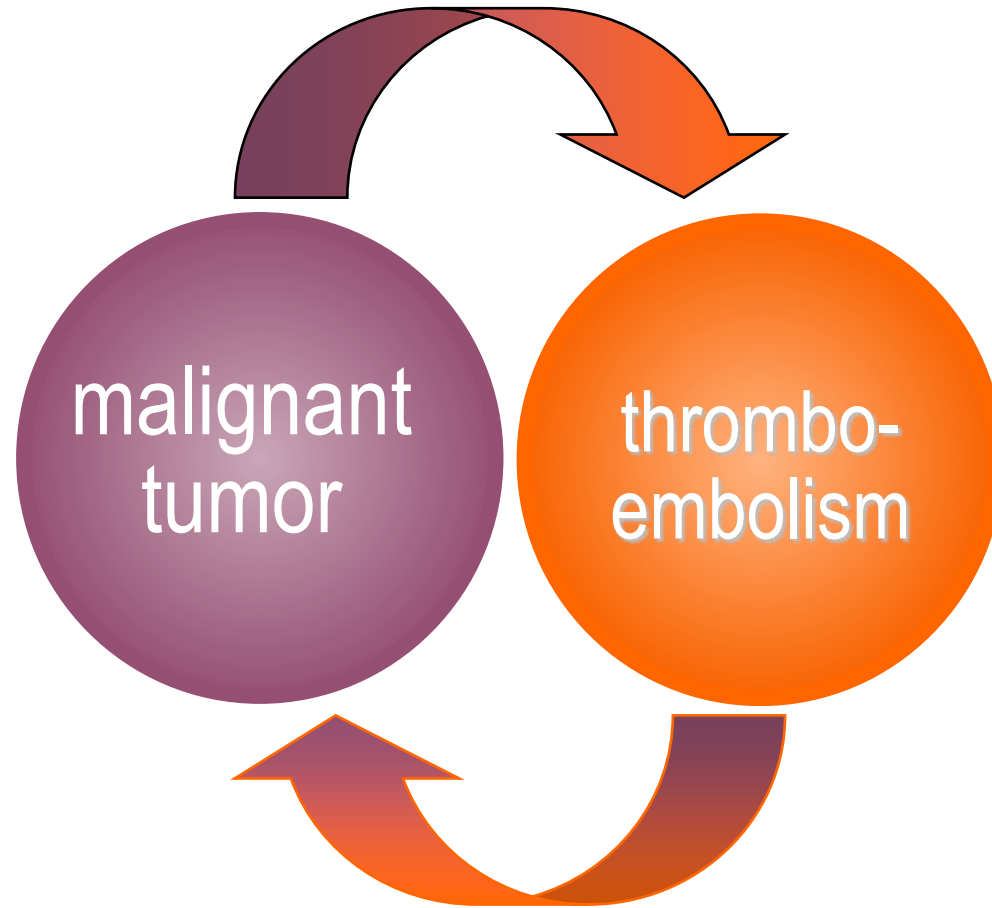
# Cancer-Associated Thrombosis

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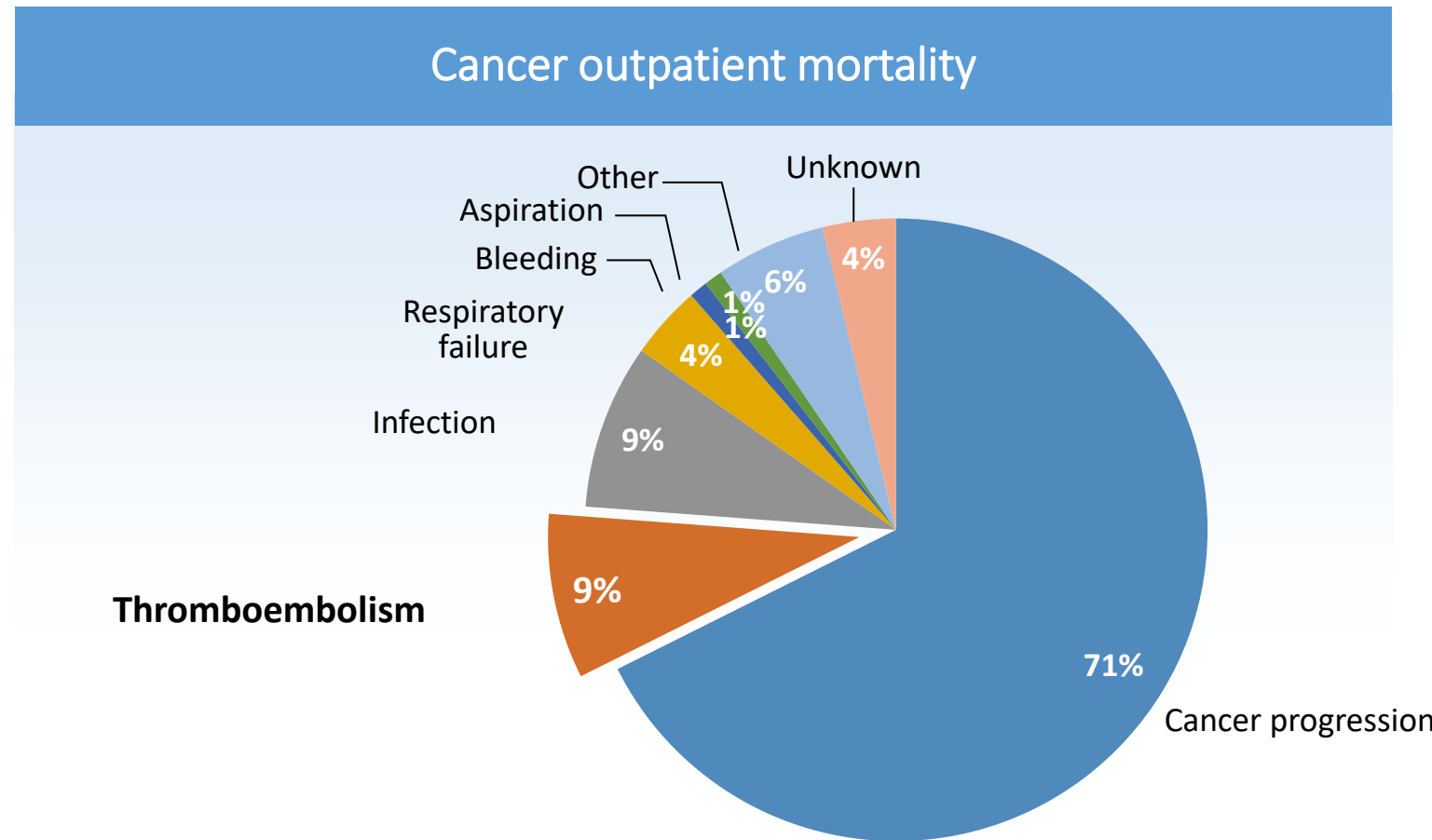
# Thrombosis and Cancer



# Cancer-Associated Thrombosis: Challenges

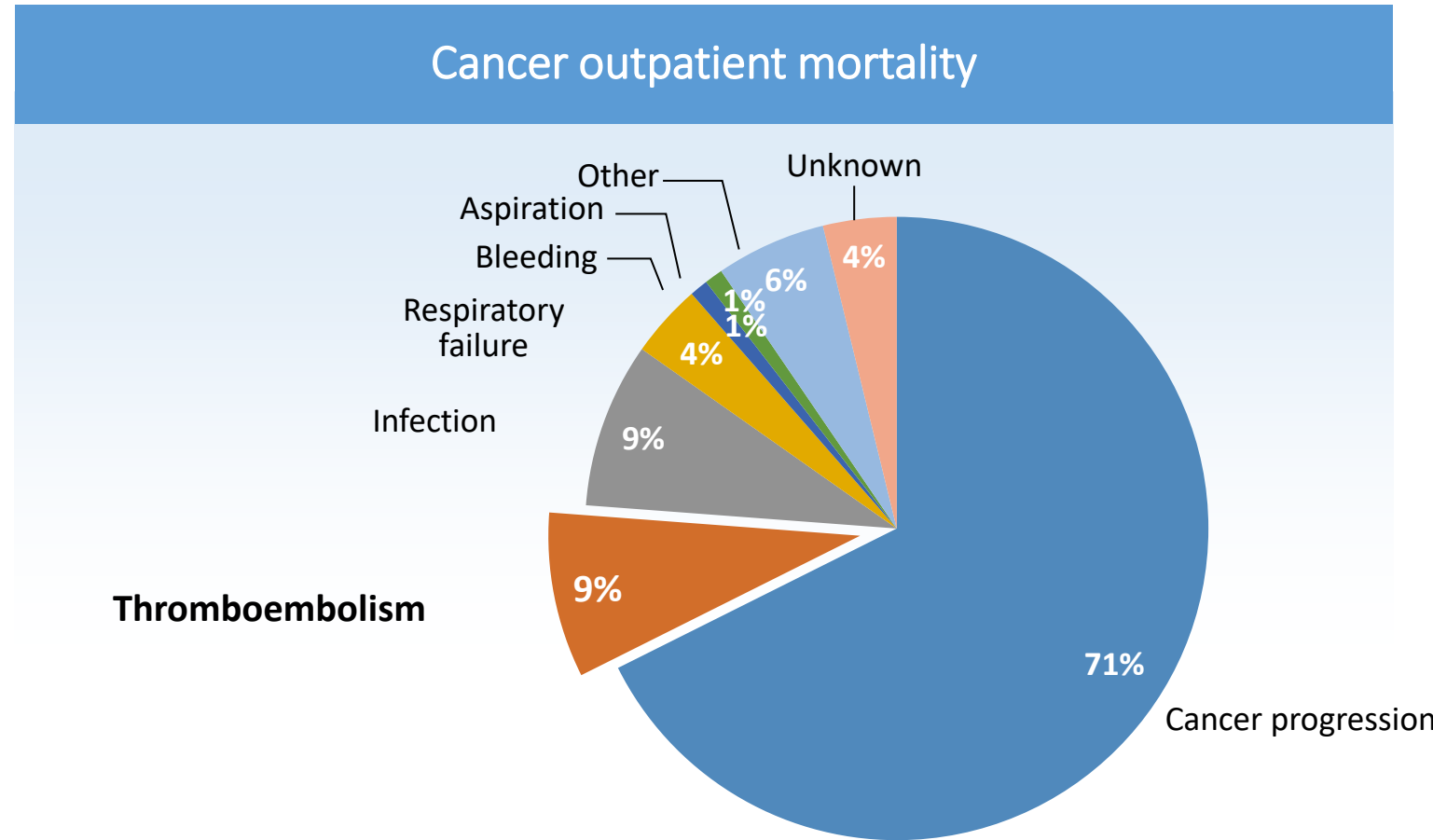
- Prognostic
- Diagnostic
- Therapeutic

# VTE & Cancer: A mortal link



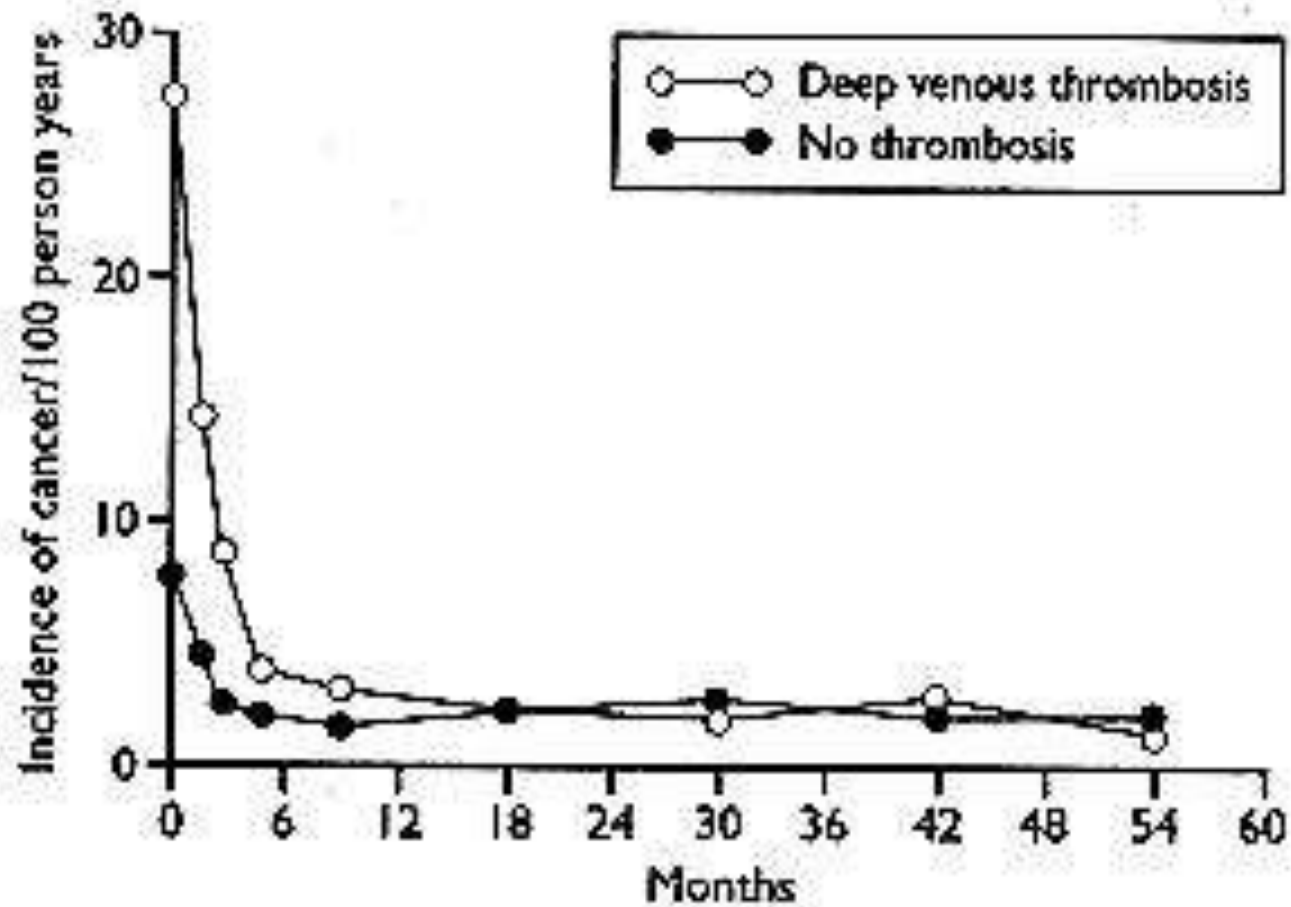
# VTE & Cancer: A mortal link

- Thromboembolism is the **second leading** cause of death in patients with cancer
- Very high mortality of patients with CAT at 6 months
- Prophylaxis of VTE: no impact on mortality

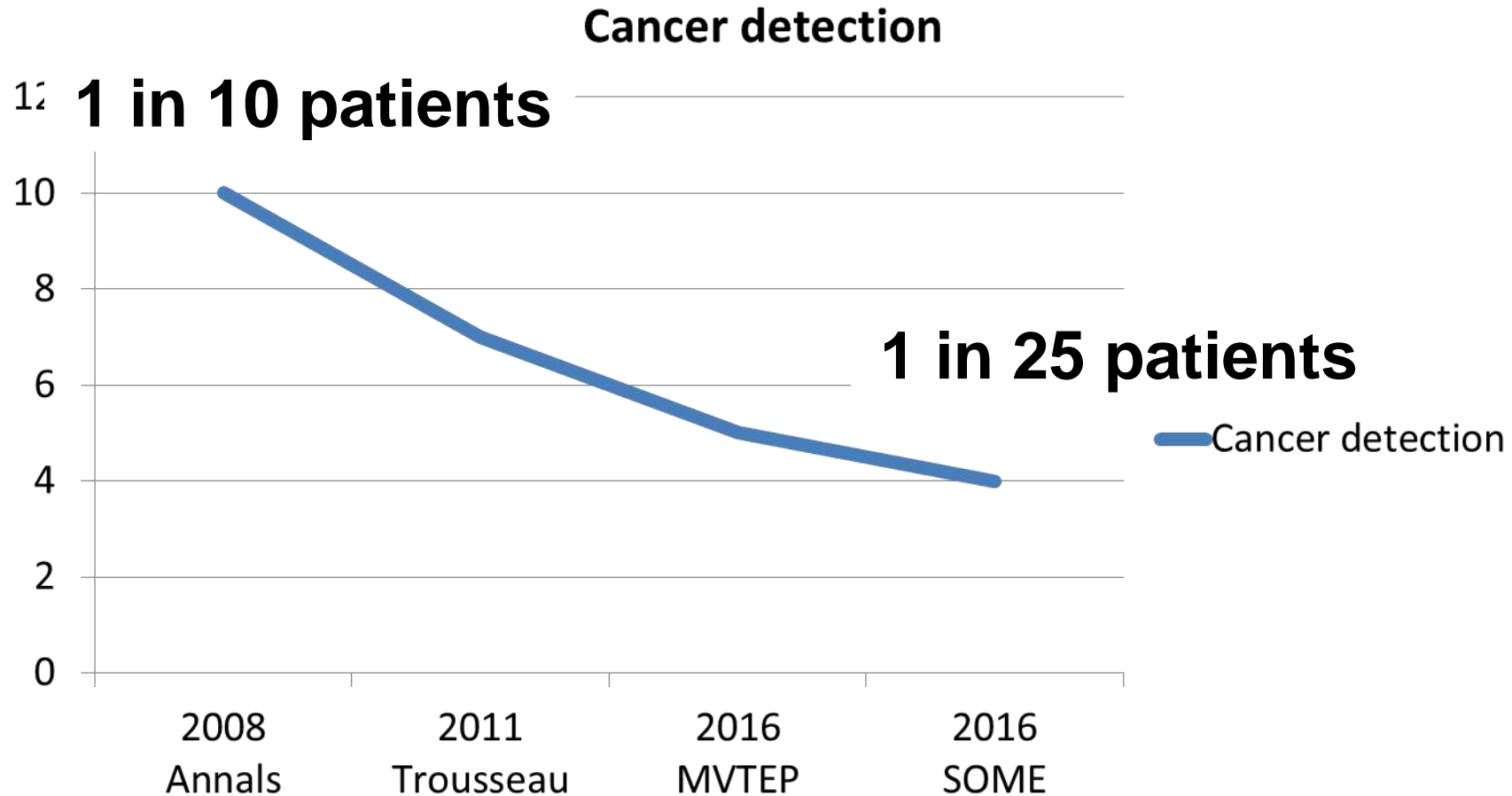


# Incidence of cancer in patients with DVT

# Incidence of cancer in patients with DVT



# Incidence of occult cancer detection in the different studies





# Occult cancer screening in VTE patients

## Why?

- Earlier detection
  - Curable cancer
  - ↑ survival
  - ↓ morbidity

## Why not?

- unnecessary invasive procedures
  - “incidental findings”
- No impact on outcome
- Anxiety
- Costs

# Limited vs. extensive occult cancer screening strategy

**SOMIT**

**Trousseau**

**SOME**

**MTVEP**

Patients with unprovoked VTE should undergo:

- Medical history and physical examination
- Basic laboratory investigations
- Chest X-ray
- Age- and gender- specific cancer screening (i.e. cervical, breast, prostate and colon ).

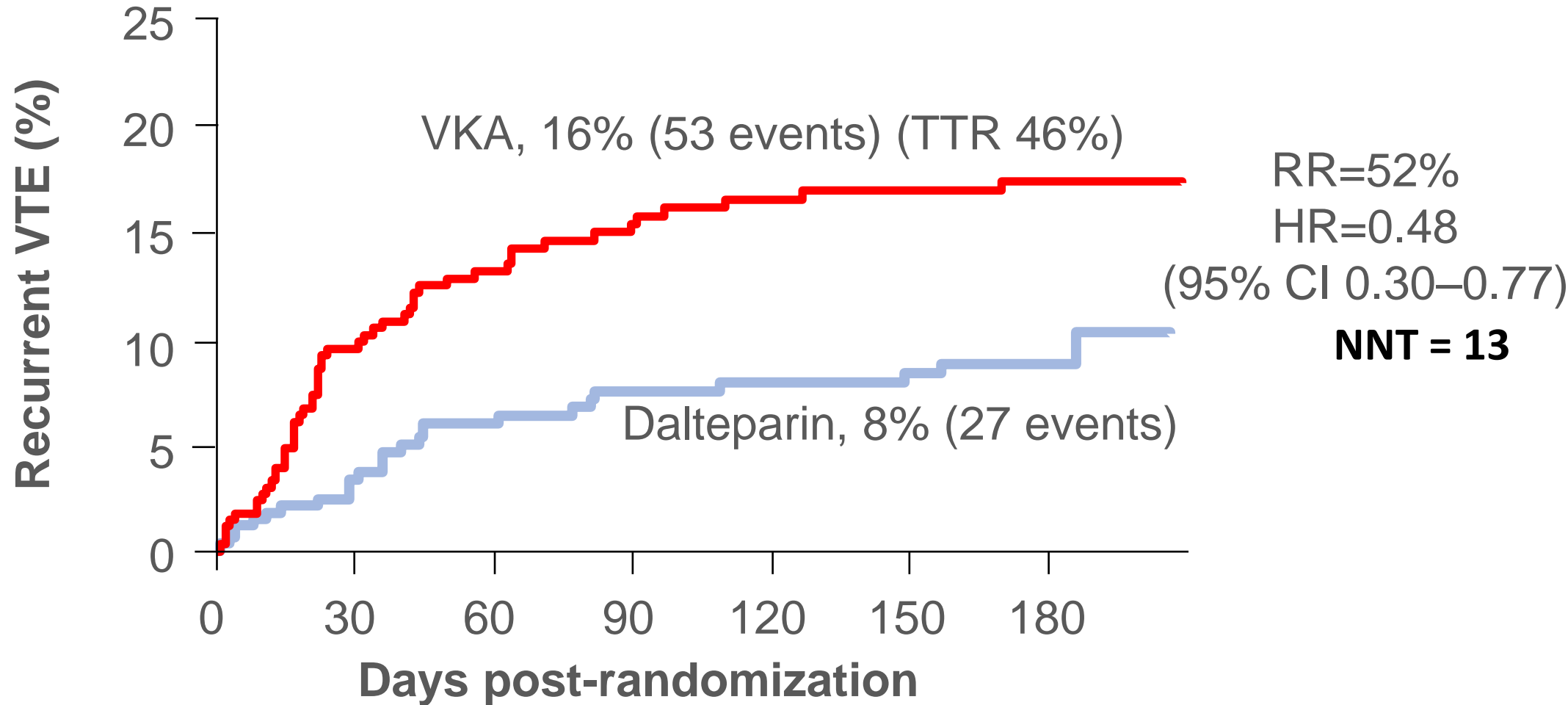
# Take home messages

- The prevalence of occult cancer in patients with a unprovoked VTE seems to be lower (~4%) than previously reported (10%)
- The risk of occult cancer is similar to the general population after the initial 6 to 12 months of follow-up.
- Limited cancer screening + clinical vigilance

# Cancer-Associated Thrombosis: Challenges

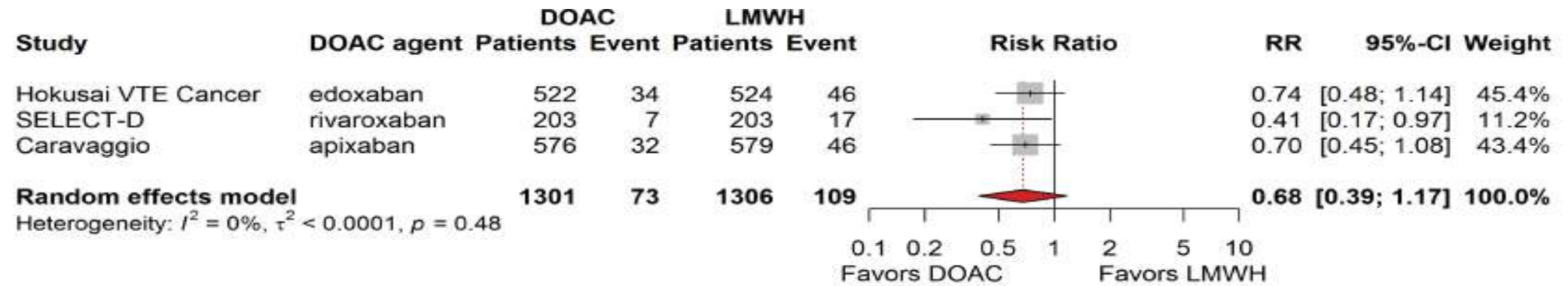
- Prognostic
- Diagnostic
- **Therapeutic**

# CLOT: A Landmark

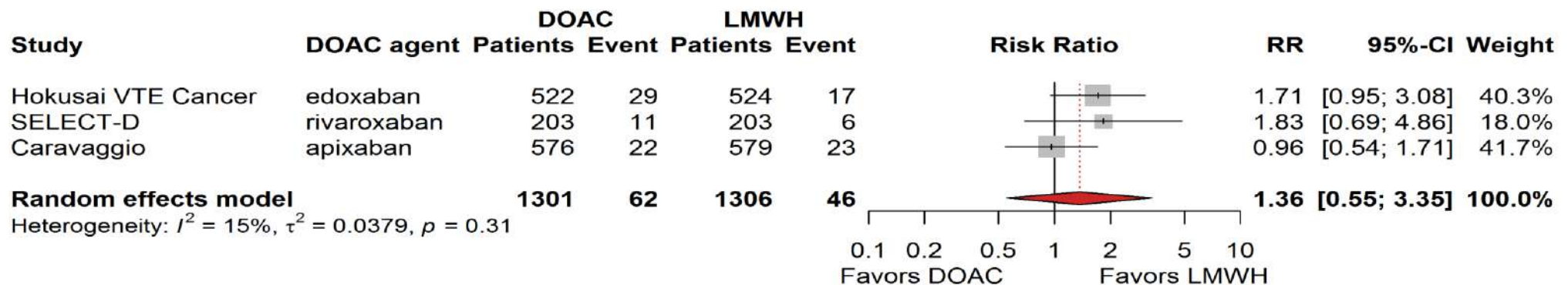


# Main outcomes at 6 months from Hokusai-VTE Cancer, SELECT-D and Caravaggio

## Recurrent VTE

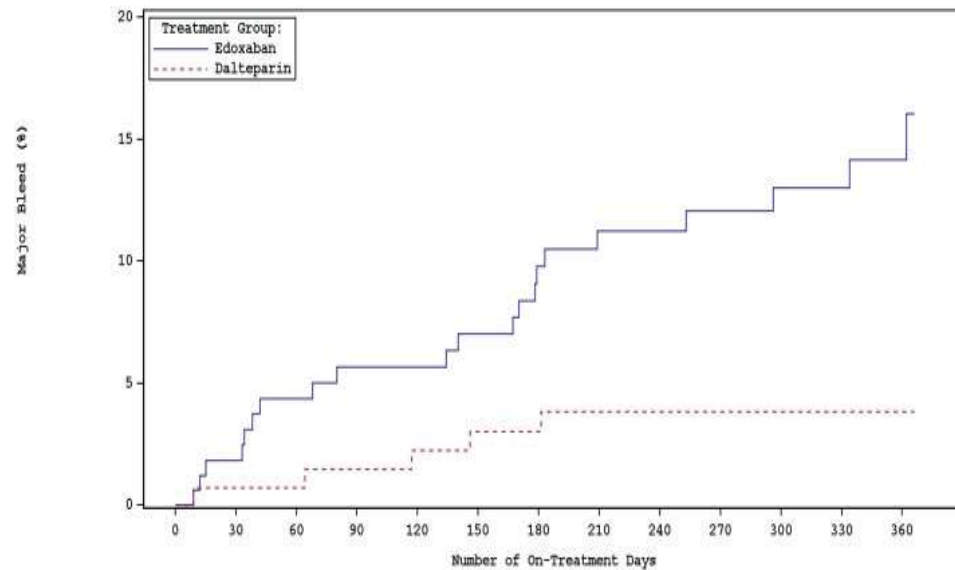


## Major bleeding



# Major bleeding events in patients with Cancer-Associated VTE

## GI cancers

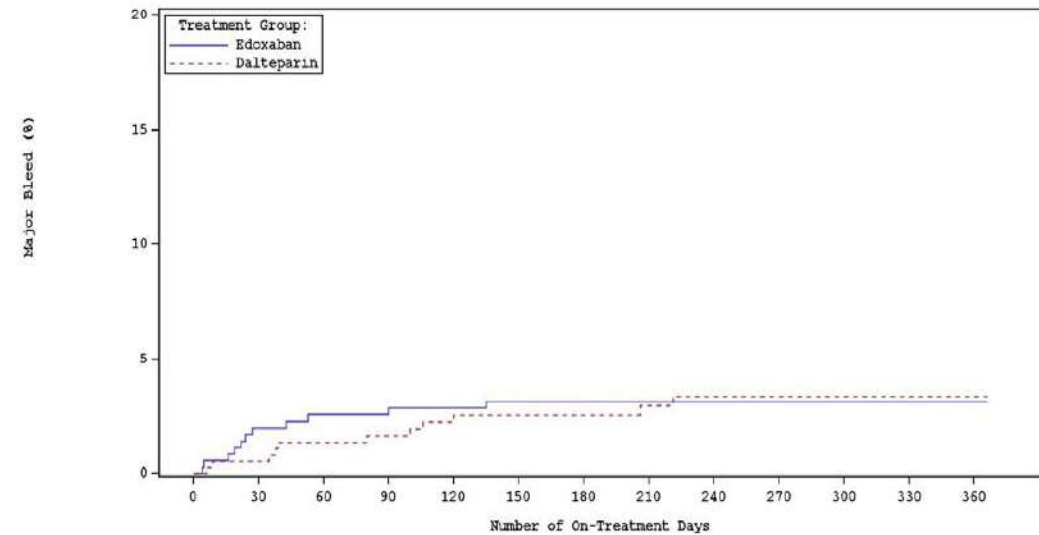


Number at Risk:

Edoxaban	165	134	121	108	97	89	79	70	64	59	48	38	28
Dalteparin	140	123	116	108	94	89	79	67	60	54	48	40	25

A

## Non-GI cancers



Number at Risk:

Edoxaban	357	315	284	271	255	234	220	190	179	171	144	123	88
Dalteparin	384	347	305	278	254	236	216	151	138	131	108	95	63

**HR 4.0 (95% CI 1.5–10.6)**  
**p=0.005**



# Organ-specific bleeding patterns of anticoagulant therapy: lessons from clinical trials

**Thomas Vanassche; Jack Hirsh; John W. Eikelboom; Jeffrey S. Ginsberg**

Population Health Research Institute, Thrombosis and Atherosclerosis Research Institute, McMaster University and Hamilton Health Sciences, Hamilton, Ontario, Canada

# What is important for patients?

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# What is important for patients?

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1. No interference with cancer treatment 39%

# What is important for patients?

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1. No interference with cancer treatment	39%
2. Efficacy / recurrent VTE	24%
3. Major bleeding	19%
4. Route of Administration	13%
5. Monitoring	2%
6. Minor bleeding	2%
7. Frequency of administration	1%

# Managing daily challenges

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- ◆ Low platelets
- ◆ Renal function
- ◆ Extremes of body weight
- ◆ Drug-drug interactions

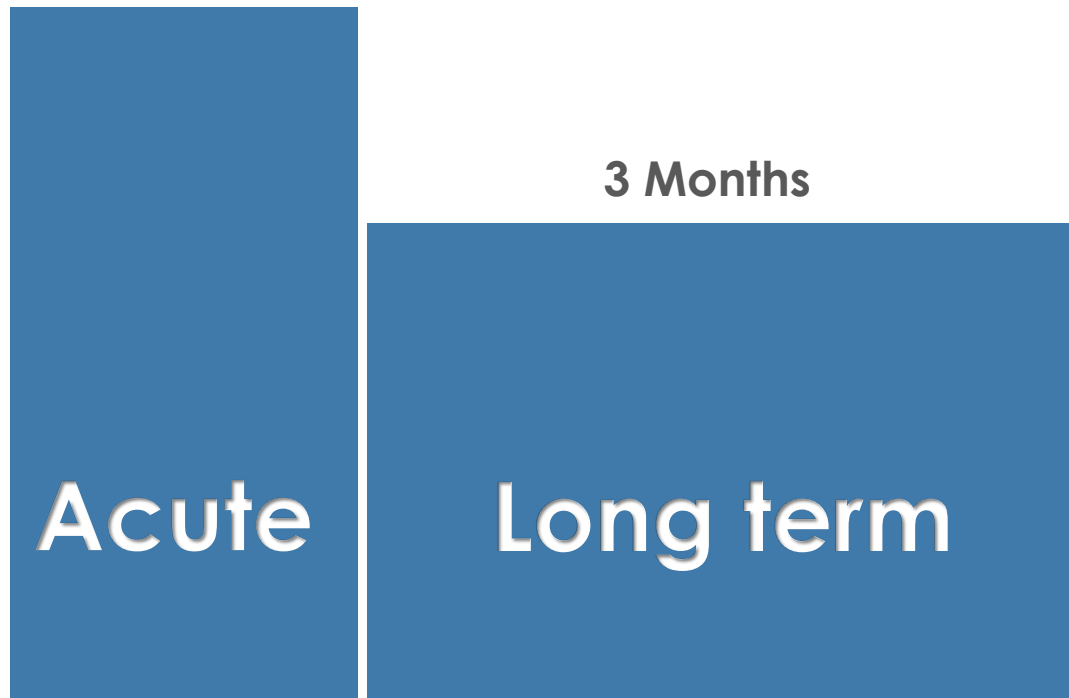
Optimal dosing?

# Managing daily challenges

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- ◆ Low platelets
- ◆ Renal function
- ◆ Extremes of body weight
- ◆ Drug-drug interactions
- ◆ Recurrent TE
- ◆ Incidental VTE
- ◆ Port-a-cath & UE DVT
- ◆ Arterial TE
- ◆ Management post-bleeding

# Which Patients Should Receive Long-Term Anticoagulation?

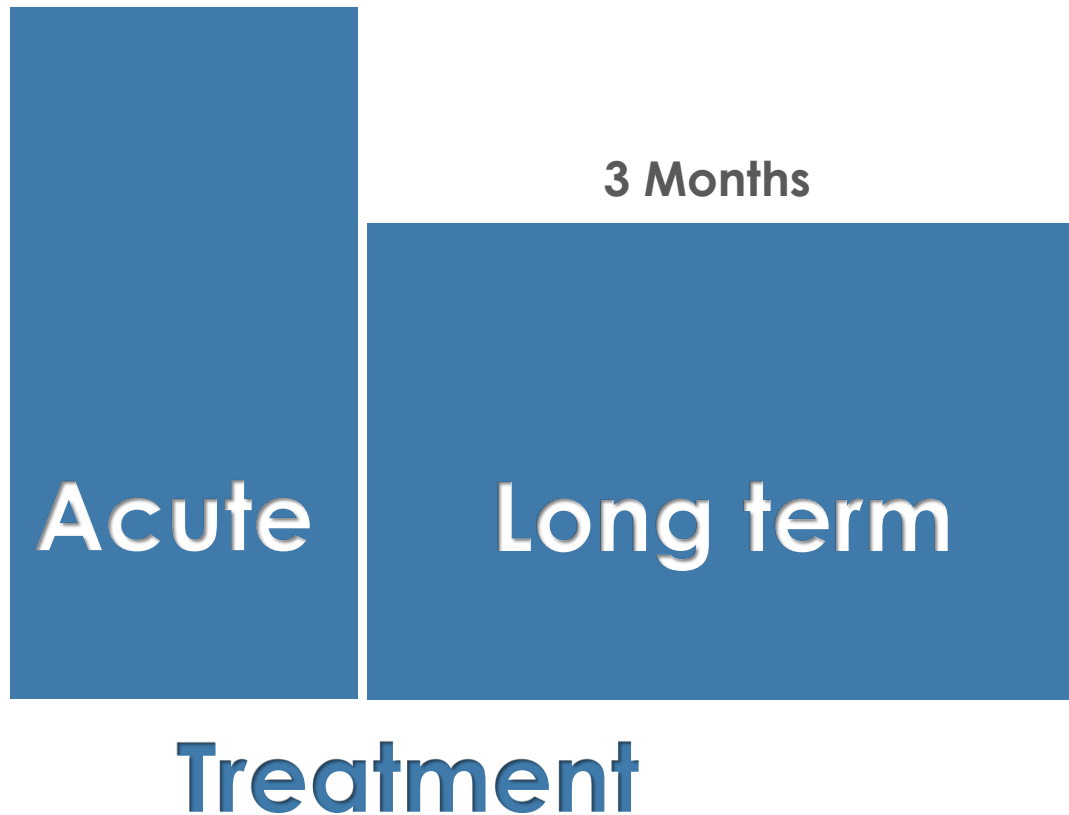


**Treatment**



**Prevention**

# Extended Anticoagulation?



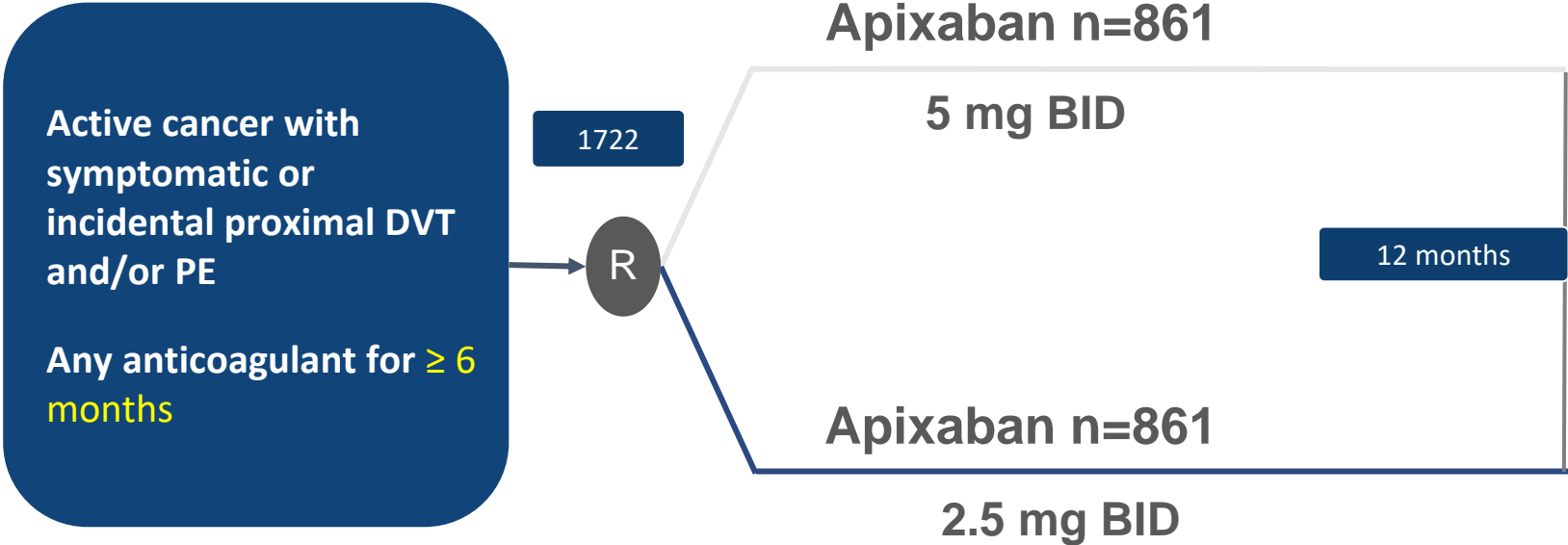
## *Continued* Anticoagulation

- 1) Persistent Risk Factors  
**Major (eg. cancer)**  
*Minor (eg. Immobile, FVL)*
- 2) No known risk factors  
(unprovoked)

*And Low bleeding risk*  
*And Patient Preference*



# APICAT STUDY\*



\* NCT03692065

# Managing daily challenges

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- ◆ No 'One size fits all' approach
- ◆ Patient selection is key:
  - tumor type
  - bleeding risk/renal function/thrombus burden...
  - drug–drug interactions
  - patient preferences

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