



27<sup>ème</sup> congrès  
20-21 septembre 2019  
Ajaccio

# OUTCOMES OF UPPER GASTROINTESTINAL BLEEDING ARE SIMILAR BETWEEN DIRECT ORAL ANTICOAGULANTS AND VITAMIN K ANTAGONISTS: A SUB-GROUP ANALYSIS OF A FRENCH PROSPECTIVE MULTICENTER STUDY

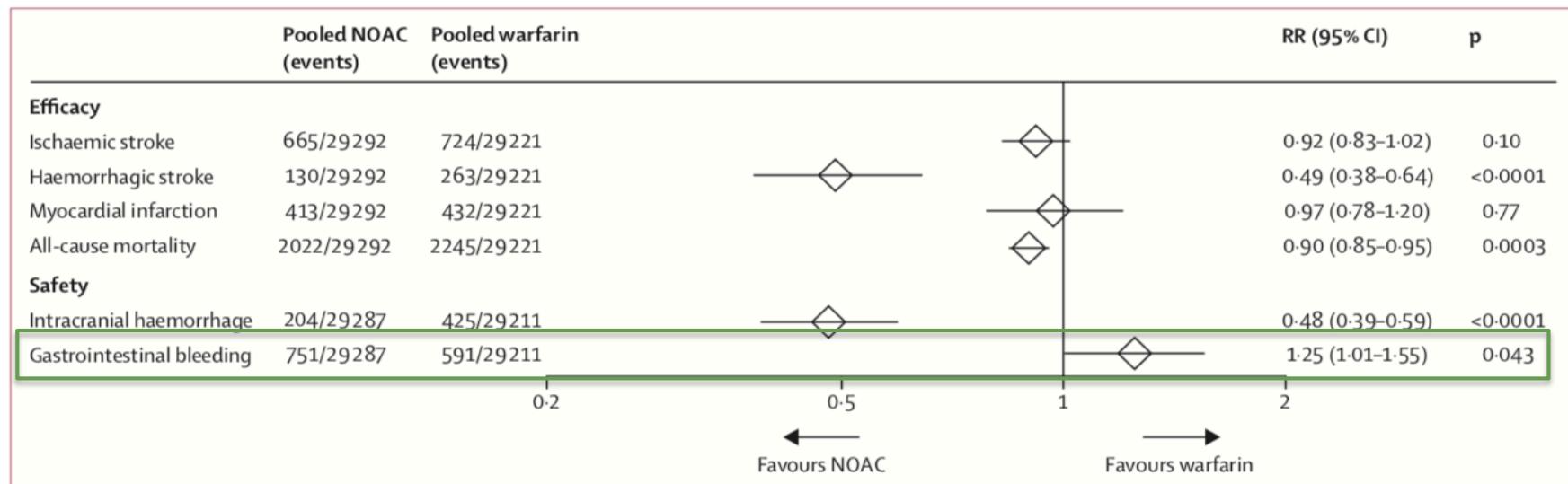
Le pronostic des hémorragies digestives hautes sous anticoagulants oraux directs ou sous anti-vitamines K est similaire :

Résultats de l'analyse de sous-groupes de SANGHRIA

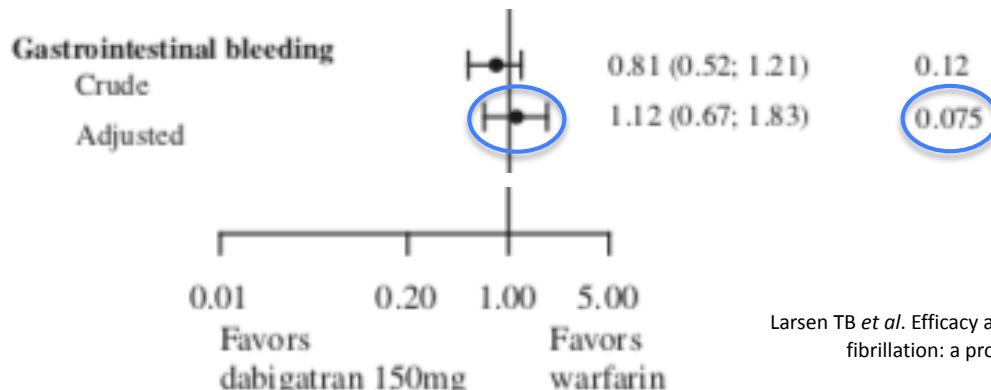
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## VKA vs DOACs: an increased bleeding risk ?



Ruff et al. Comparison of the efficacy and safety of new oral anticoagulants with warfarin in patients with atrial fibrillation: a meta-analysis of randomised trials. Lancet Lond Engl. 2014 Mar 15;383(9921):955-62.



Larsen TB et al. Efficacy and safety of dabigatran etexilate and warfarin in "real-world" patients with atrial fibrillation: a prospective nationwide cohort study. J Am Coll Cardiol. 2013 Jun 4;61(22):2264-73.



## Methods

- Prospective multicenter study
- November 2017 - October 2018
- 46 French general hospitals
- Electronical case report form



## Methods: inclusion criteria

**Upper gastrointestinal bleeding (UGIB)**

Hematemesis

and/or melena

and/or acute anemia with blood in the stomach

Occurring before admission or during hospitalization

**Oral anticoagulant at the time of the UGIB**



## Methods: outcomes

Comparison: Vitamine K antagonists *versus* Direct Oral Anticoagulants

**At 6 weeks:**

Mortality

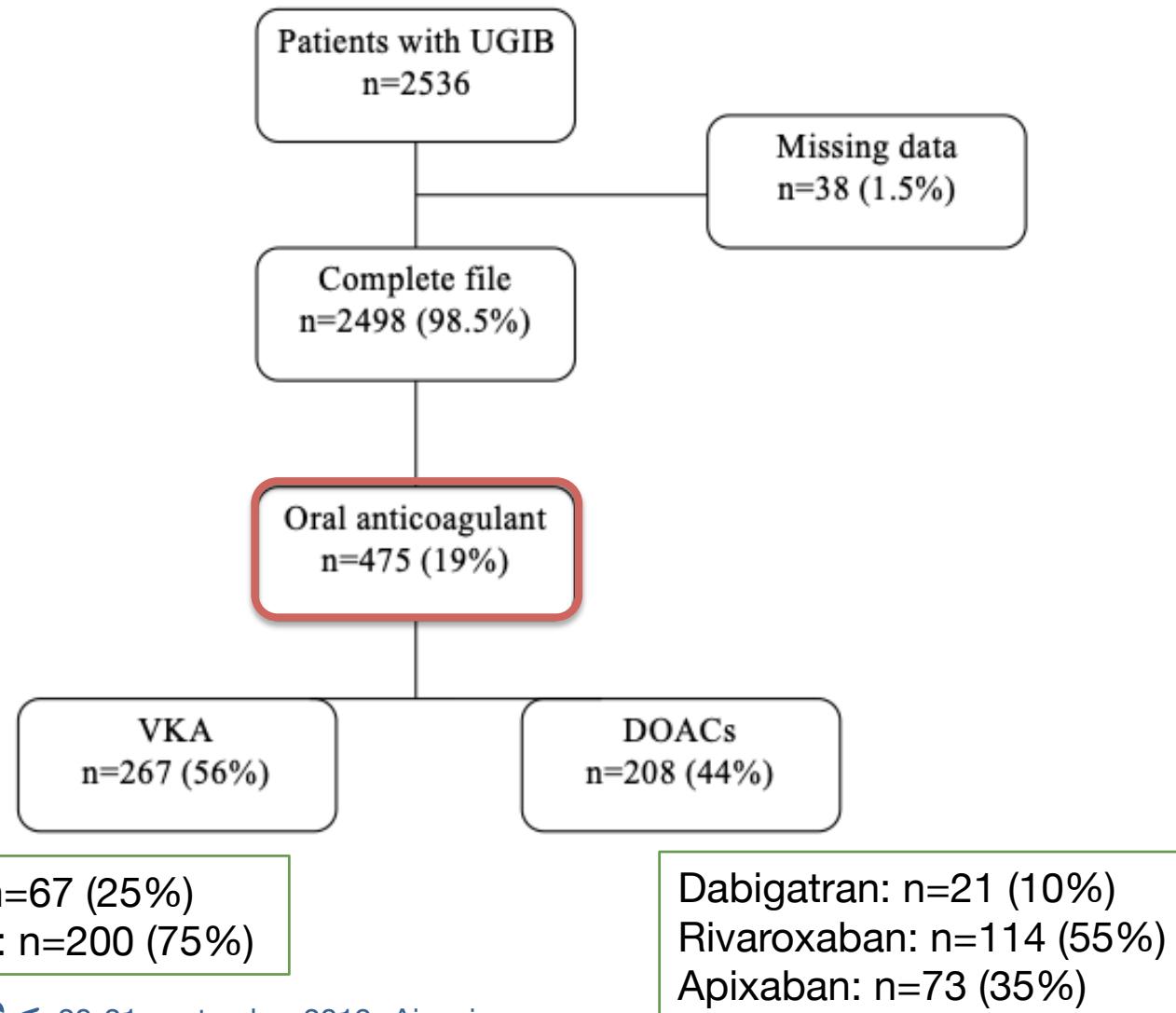
Rebleeding

Need for non-endoscopic treatment

- *surgery, embolization*



## Results: flowchart



# Results: baseline characteristics

## Clinical data

Men: 65%

Age: 78.7 years (mean)

Charlson=3.2, Rockall=5, Blatchford=11.7 (mean)

## Main indications for anticoagulation

**Atrial fibrillation: VKA 52.6% and DOACs 66.8%**

Venous thromboembolism: 14.7% and 12%

## At admission

Melena: 81% patients

State of shock: 9.9%

**In-hospital status: 19.8% patients**

Coagulopathy reversion: VKA (50.6%) and DOACs (17.3%)



# Results: baseline characteristics

	VKA (n=267)	DOACs (n=208)	p
Age, years	78.1 [10.8]	79.6 [4.9]	0.11
Sex Male / Female	174 (65.1%) / 93 (34.8%)	135 (64.9%) / 73 (35%)	0.95
In-hospital status	54 (20.2%)	40 (19.2%)	0.79
BMI, kg/m <sup>2</sup>	26.9 [6.8]	26.4 [2.8]	0.25
Active smoking	37 (13.8%)	22 (10.5%)	0.47
Alcohol consumption	34 (12.7%)	24 (11.5%)	0.69
<b>Previous history</b>			
UGIB	33 (12.4%)	18 (8.7%)	0.19
Ulcer	26 (9.7%)	17 (8.1%)	0.47
Cirrhosis	35 (13.1%)	9 (4.3%)	<b>0.001</b>
Kidney failure	103 (38.6%)	40 (19.2%)	<b>5.10^-6</b>
CHARLSON score	3.4 [2.4]	2.9 [2.6]	0.06
Rockall score	5.2 [1.9]	4.8 [1.9]	<b>0.03</b>
Blatchford score	11.9 [3.8]	11.5 [4]	0.31

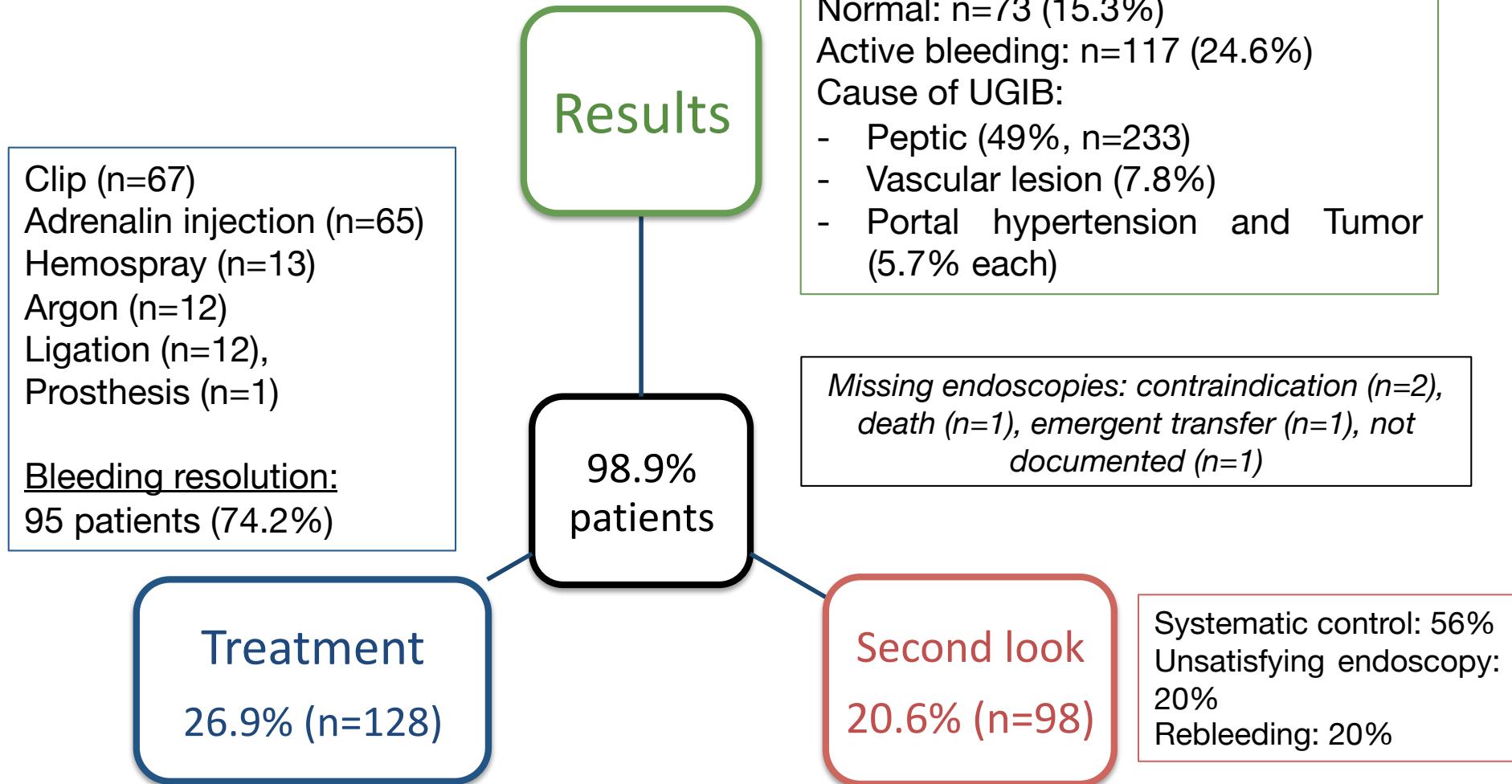


# Results: baseline characteristics

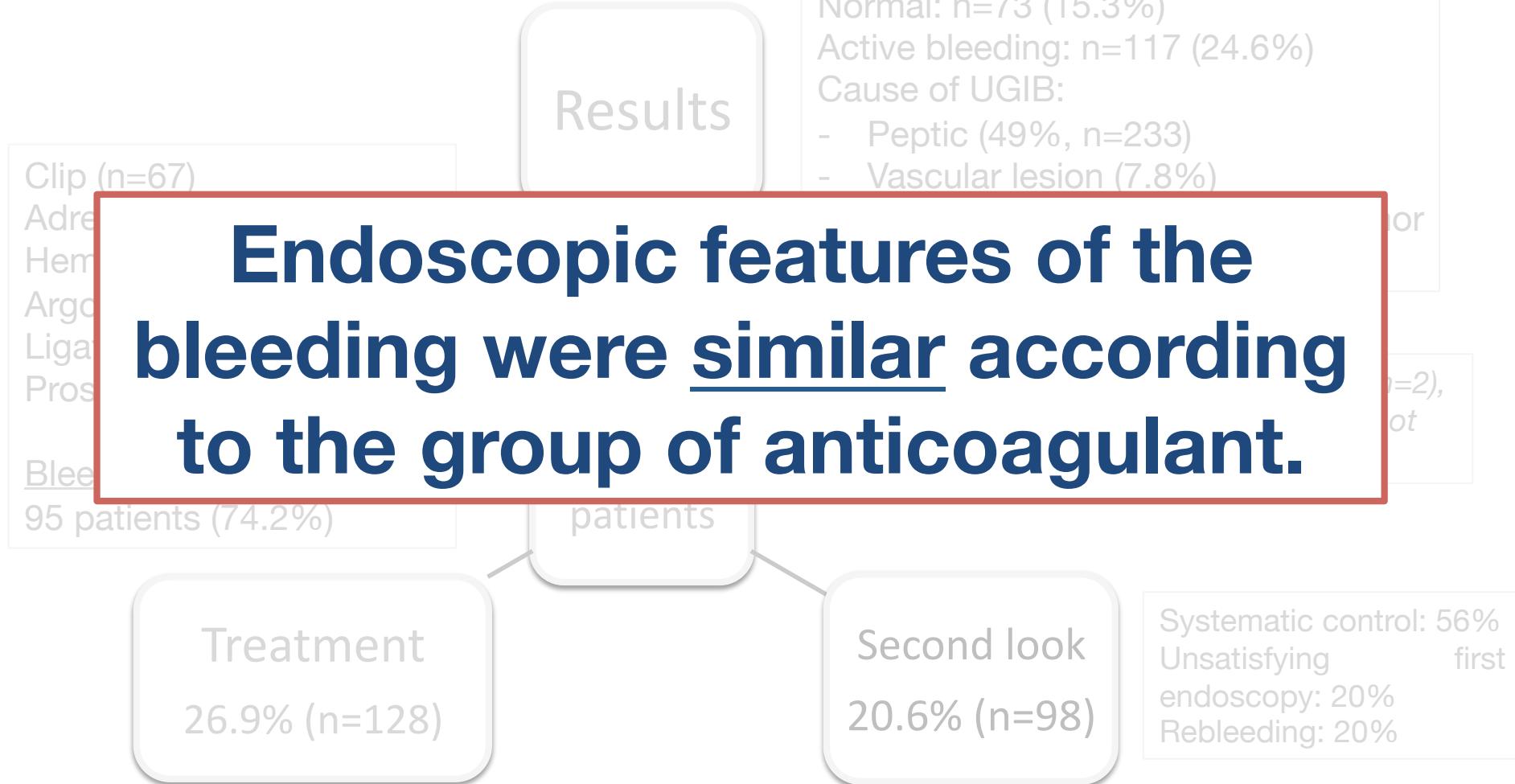
	VKA (n=267)	DOACs (n=208)	p
<b>Medication</b>			
Aspirin	53 (19.9%)	47 (22.6%)	0.46
APA	27 (10.1%)	28 (13.5%)	0.25
NSAIDs	4 (1.5%)	7 (3.3%)	0.18
Corticoids	18 (6.7%)	8 (3.8%)	0.16
PPI	113 (42.3%)	76 (36.5%)	0.2
Betablockers	114 (42.7%)	89 (42.8%)	0.17
<b>Clinical state at admission</b>			
Occurrence of shock	23 (8.6%)	24 (11.5%)	0.29
<b>Biological parameter at admission</b>			
Hemoglobin, g/dL	8.5 [2.5]	8.5 [2.7]	0.82
<b>Initial treatment</b>			
Need for resuscitation	74 (27.7%)	60 (28.8%)	0.78
Red cell transfusion	153 (57.3%)	128 (61.5%)	0.47



## Results: endoscopy



## Results: endoscopy



## Results: outcomes

	VKA n=267	DOACs n=208	p
Non-endoscopic treatment n=18 (3.8%)	10	8	p=0.95
Rebleeding at 6 weeks n=56 (11.8%)	30	26	p=0.71
Mortality at 6 weeks n=59 (12.4%)	43	16	<b>p=0.0059</b>

## Results: predictive factors

### NON-ENDOSCOPIC TREATMENT

<i>Analysis factors</i>	<i>Univariate, p</i>	<i>Multivariate, OR [95%CI], p</i>
Charlson index >=5	0.16	0.27 [0.06-1.28], p=0.10
DOACs vs VKA	0.96	
Other APA	0.15	2.77 [0.80-9.6], p=0.11
Betablockers	0.19	0.56 [0.18-1.71], p=0.31
Shock	0.009	2.58 [0.74-9.1], p=0.14
Transfusion	0.009	4.54 [0.99-20.7], p=0.051
Rockall Score >2	0.12	0.94 [0.12-9.3], p=0.95
<b>Tumoral bleeding</b>	<b>0.002</b>	<b>6.7 [1.7-26.5], p=0.007</b>
Endoscopic treatment	0.09	2.21[0.75-6.5], p=0.15



## REBLEEDING

<b><i>Analysis factors</i></b>	<b><i>Univariate, p</i></b>	<b><i>Multivariate, OR [95%CI], p</i></b>
Age	0.13	2.94 [0.63-13.3], p=0.08
Charlson index >=5	0.05	1.72 [0.93-3.2], p=0.08
DOACs vs VKA	0.72	
<b>Other APA</b>	<b>0.015</b>	<b>2.55 [1.22-5.35], p=0.012</b>
<b>Betablockers</b>	<b>0.005</b>	<b>0.39 [0.21-0.76], p=0.006</b>
Active bleeding	0.015	1.59 [0.76-3.36], p=0.22
Endoscopic treatment	0.03	1.69 [0.81-3.55], p=0.16

## MORTALITY

<b><i>Analysis factors</i></b>	<b><i>Univariate, p</i></b>	<b><i>Multivariate, OR [95%CI], p</i></b>
Cirrhosis	0.0925	1.18 [0.47-2.9], p=0.72
<b>Charlson index &gt;=5</b>	<b>&lt;0.0001</b>	<b>4.02 [2.16-7.44], p&lt;0.0001</b>
<b>In-patient</b>	<b>0.0003</b>	<b>2.96 [1.5-5.7], p=0.0013</b>
DOACs vs VKA	0.006	0.53 [0.27-1.04], p=0.068
PPI	0.19	0.63 [0.33-1.21], p=0.18
Shock	0.045	1.29 [0.50-3.3], p=0.59
Coagulopathy reversion	0.026	1.68 [0.87-3.26], p=0.12
Blatchford >=14	0.014	1.36 [0.69-2.7], p=0.38
Rockall Score >2	0.05	2.42 [0.30-19.3], p=0.40
Ulcer	0.02	1.53 [0.79-2.9], p=0.20
Vascular bleeding	0.17	0.39 [0.08-1.91], p=0.25



## Conclusion

- DOACs do not alter outcomes of UGIB as compared to VKA in terms of mortality, rebleeding and need for non-endoscopic treatment.
- Comorbidities and associated treatment seem to be the most important factors worsening prognosis of UGIB.



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