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ARISTOTLE: apixaban vs warfarin and renal function

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ARISTOTLE: apixaban vs warfarin and renal function (15% had eGFR ≤ 50 ml/min, 42% eGFR $>50-80$ ml/min)

What is already known:

- Renal dysfunction is common with atrial fibrillation
- Renal dysfunction increases risk of thromboembolism and of haemorrhage

- Apixaban reduces risk of major bleeding

What is unknown:

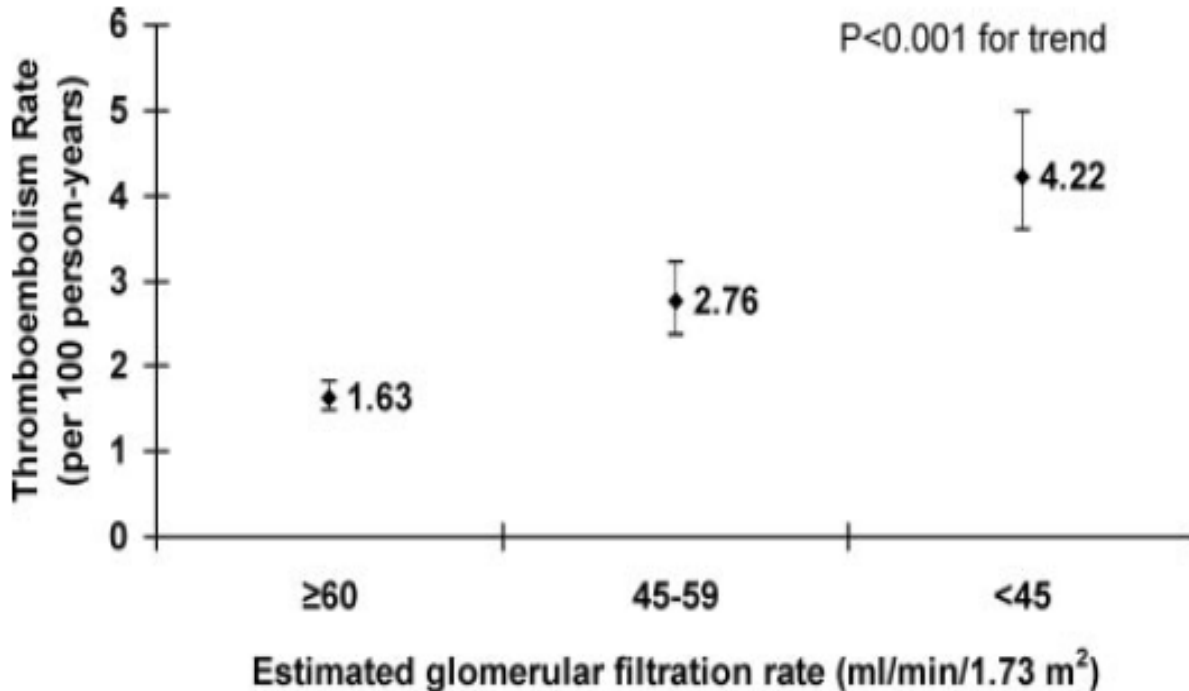
- Are the benefits of apixaban overall?
- Impact on major bleeding overall?

eGFR, mL /min 1.73 m ²	Prevalence in atrial fibrillation
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45–59	20%
≤ 45	10%

ATRIA. Circ. 2009;119:1363-1369

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major

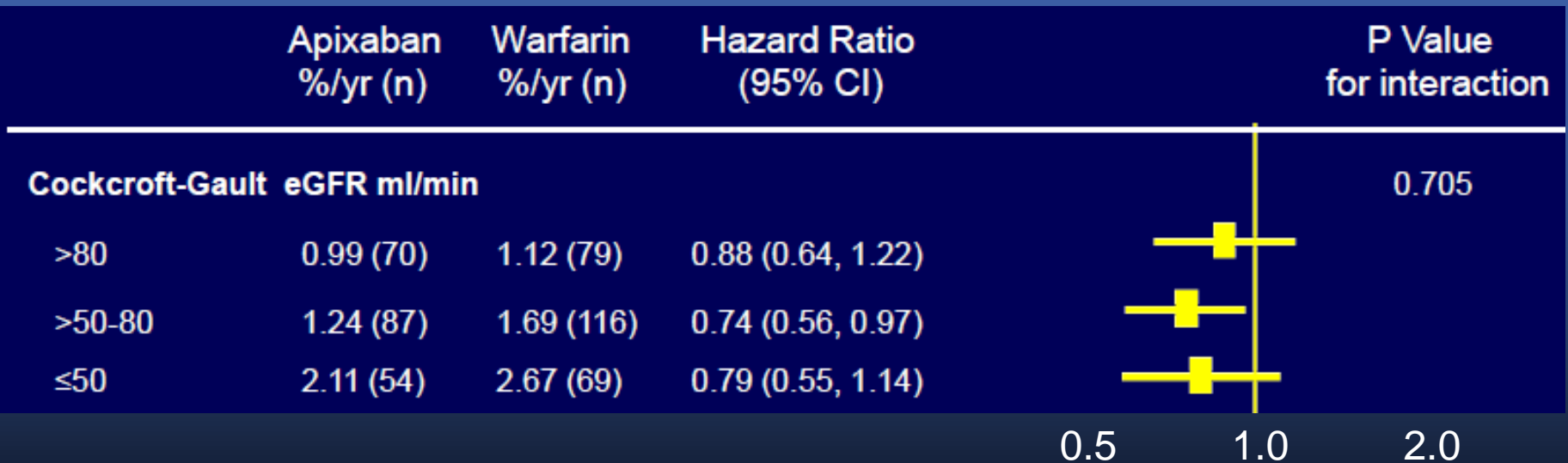
overall?

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What was found:

Ischemic stroke rate X2 and mortality X3 in patients with eGFR ≤ 50 ml/min vs eGFR >80 ml/min
Major bleeding approx X3

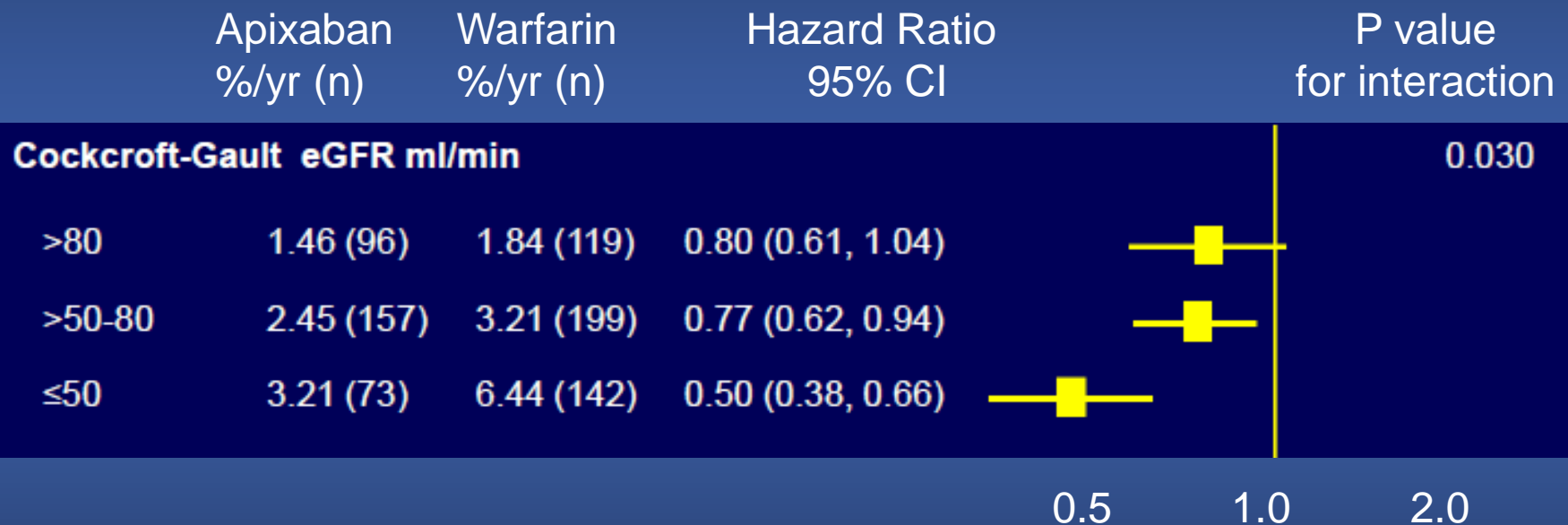
Treatment effect according to renal function?



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What was found:

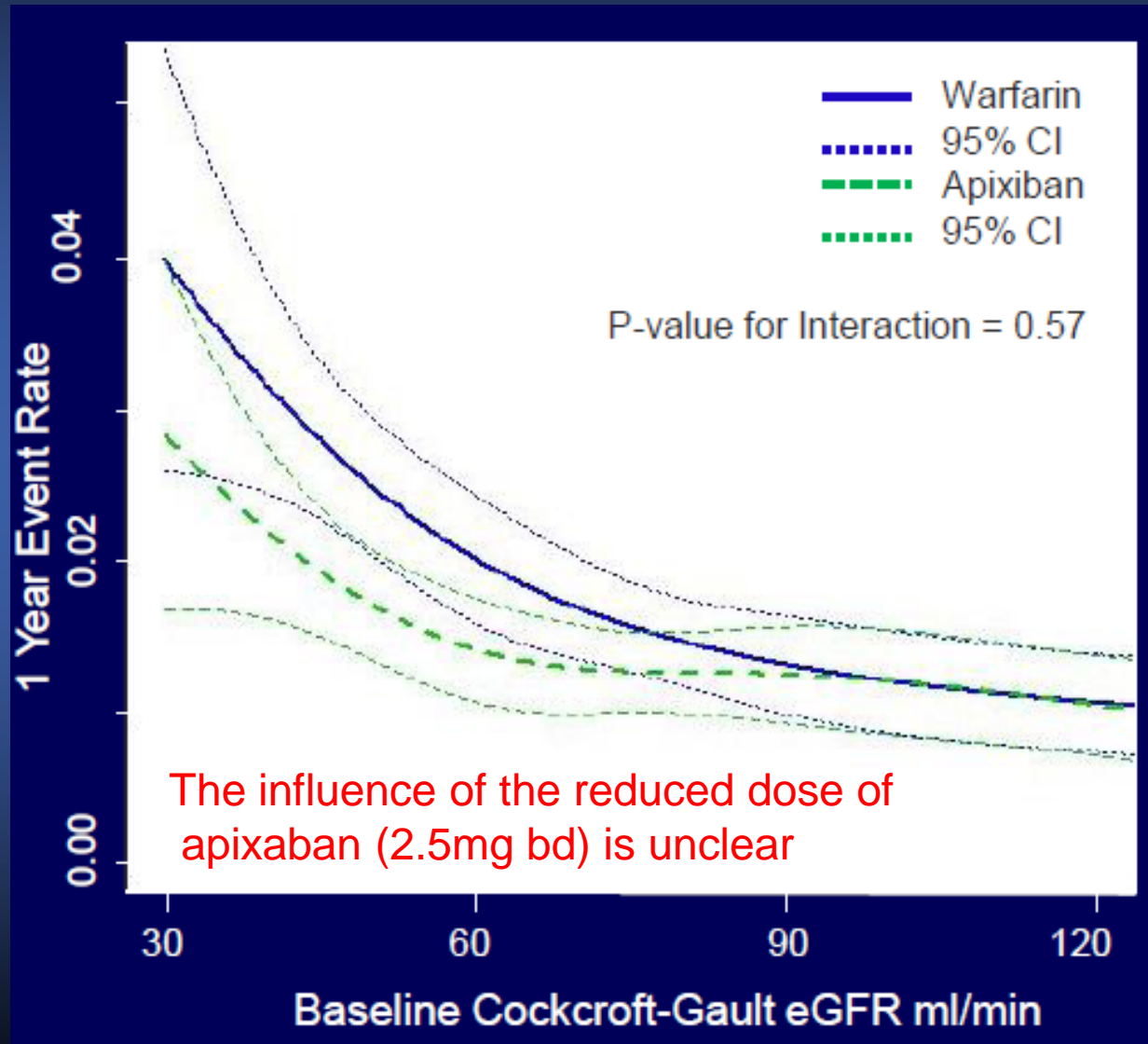
Major Bleeding according to renal function



Patients with impaired renal function appear to have greater reduction in major bleeding with apixaban. **Why?**

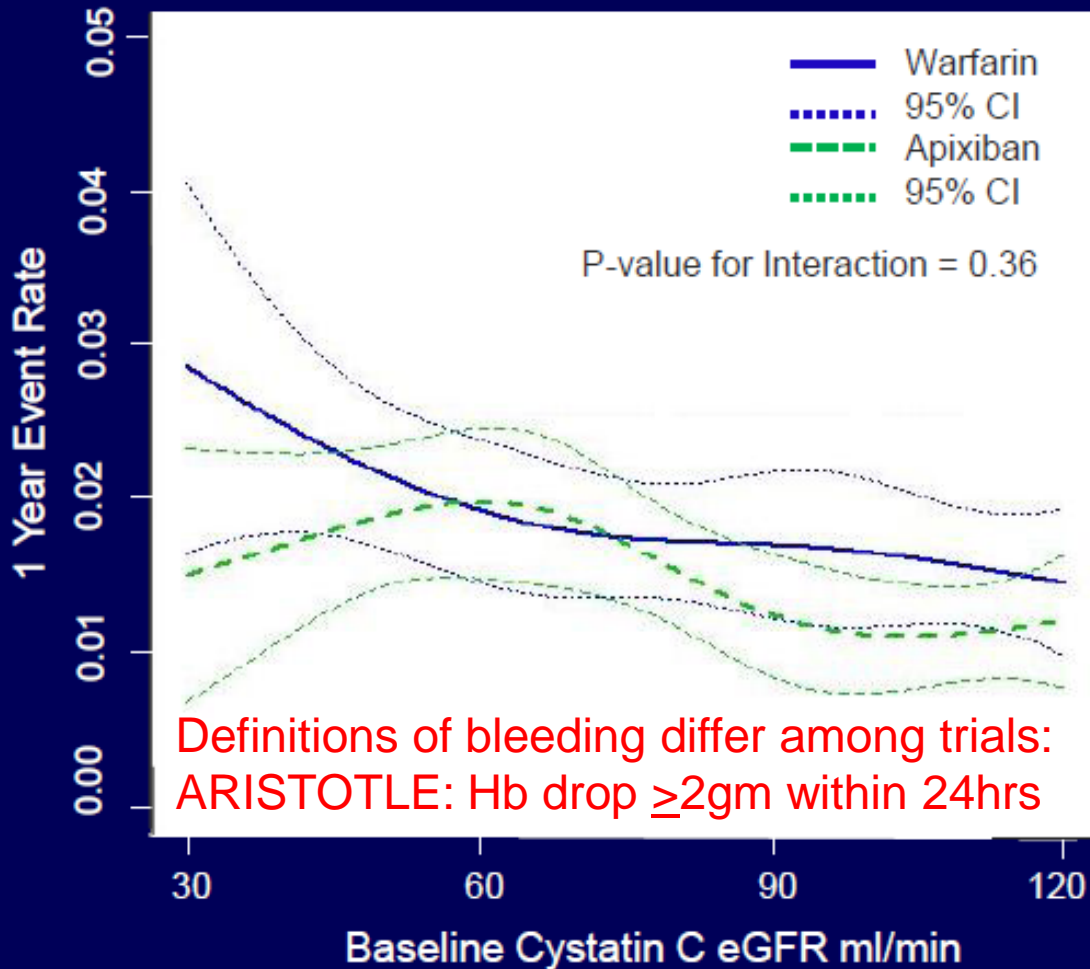
Apixaban dose				NEJM 2011:365: 981-92
2.5 mg twice daily or placebo	831	12 (1.7)	22 (3.3)	
5 mg twice daily or placebo	17,370	200 (1.3)	243 (1.5)	

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Stroke or Systemic Embolism



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CONCLUSIONS:

- Renal dysfunction is highly prevalent in patients with ACS, and associated with both stroke and bleeding risk
- In ARISTOTLE the overall findings of the trial are consistent with those seen in patients with moderate renal dysfunction
- Benefits over warfarin, reduced bleeding, appear to be more marked in those with moderate renal dysfunction
- The trial was not designed to test for superiority of one of the three methods of measuring renal function
- Role of the reduced dose of apixaban?

- ARISTOTLE provides a treatment option, and advantages over warfarin in patients with moderate renal dysfunction – a group with sub-optimal current management