# Thrombocytosis: an early marker of cancer in primary care?

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## What was the aim of this project?

- This project aimed to investigate if thrombocytosis is an early marker of cancer, in patients in primary care (attending their GP surgery).

## What is thrombocytosis?

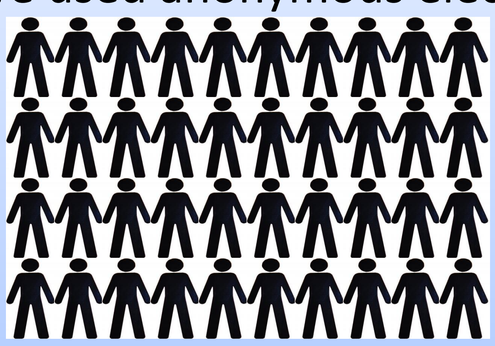
Raised platelet count, in the blood.

Normal platelet count: 150-400x$10^9$/L.

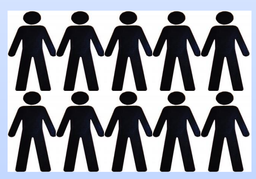
Thrombocytosis: platelet count over 400x$10^9$/L.

## How did we investigate that?

We used anonymous electronic GP records from the CPRD (Clinical Practice Research Datalink), for two patient groups:



40,000 with thrombocytosis



10,000 with normal platelet counts

We followed them up for two years from the date of their blood test showing thrombocytosis…

Cancer?

… and compared cancer outcomes in the two groups

## What did we find out?

Patients with thrombocytosis had an increased risk of harbouring cancer, compared to those with normal platelet counts.

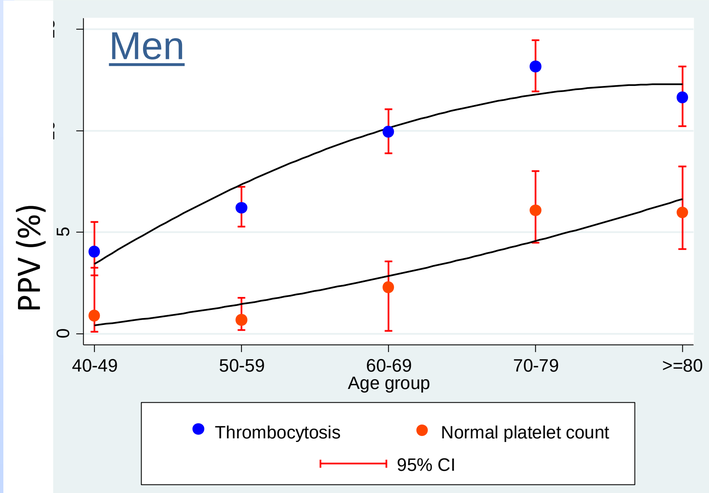
Men: 2.5 x increase in risk

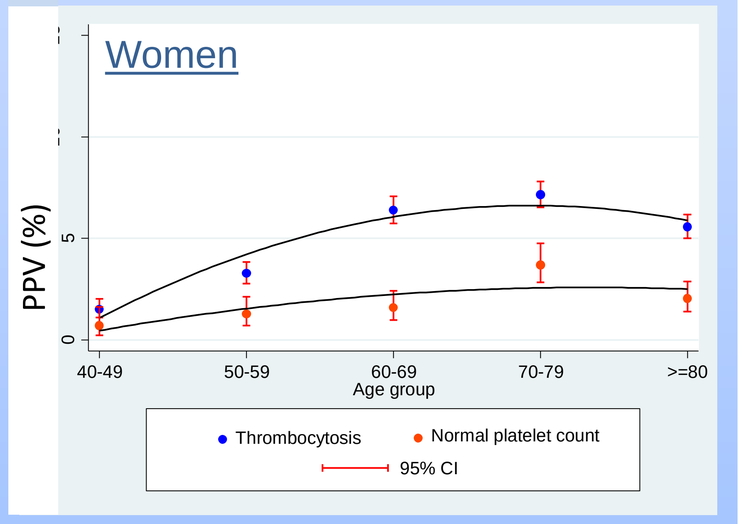
| Thrombocytosis PPV % (95% CI) | Normal platelets PPV (95% CI) |
|---|---|
| 9.8 (9.2-10.3) | 3.6 (2.9-4.3) |

Women: 2 x increase in risk

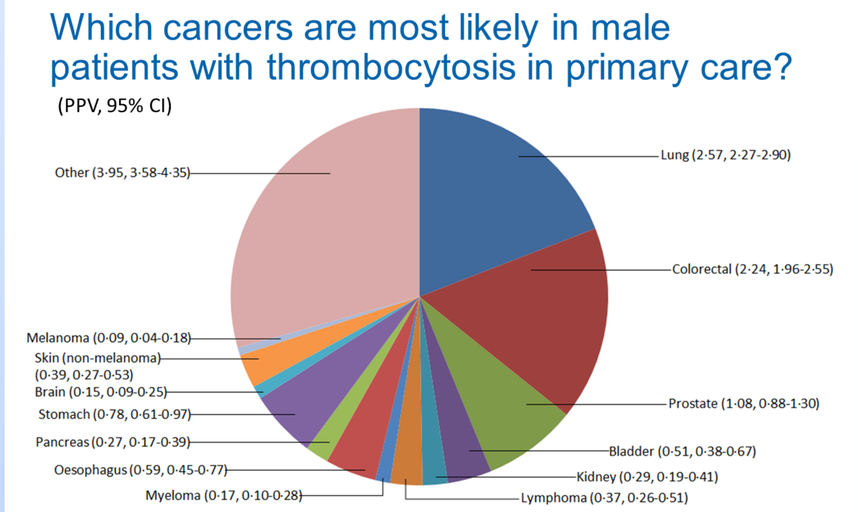
| Thrombocytosis PPV (95% CI) | Normal platelets PPV (95% CI) |
|---|---|
| 5.3 (5.0-5.5) | 2.1 (1.7-2.5) |

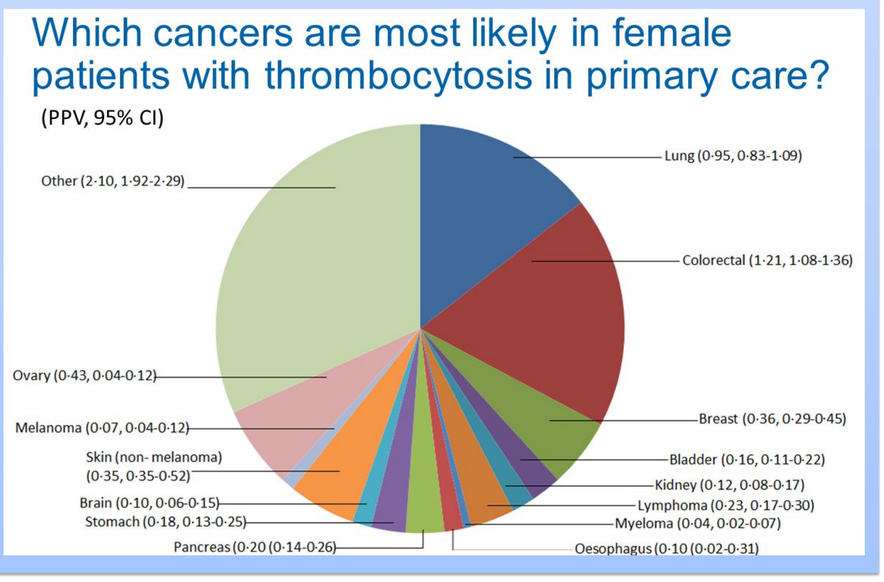
The risk of cancer increases with age, with the greatest difference between those aged 60-69.




Some cancer sites have a stronger association with thrombocytosis than others…




## What next?

- Further analysis to see how consistently raised platelets affects cancer risk.
- Raise awareness of this marker amongst GPs though dissemination and publication.
- There is the potential to develop an alert system to ‘flag up’ patients with blood test results showing thrombocytosis, and therefore increased cancer risk, to GPs.

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