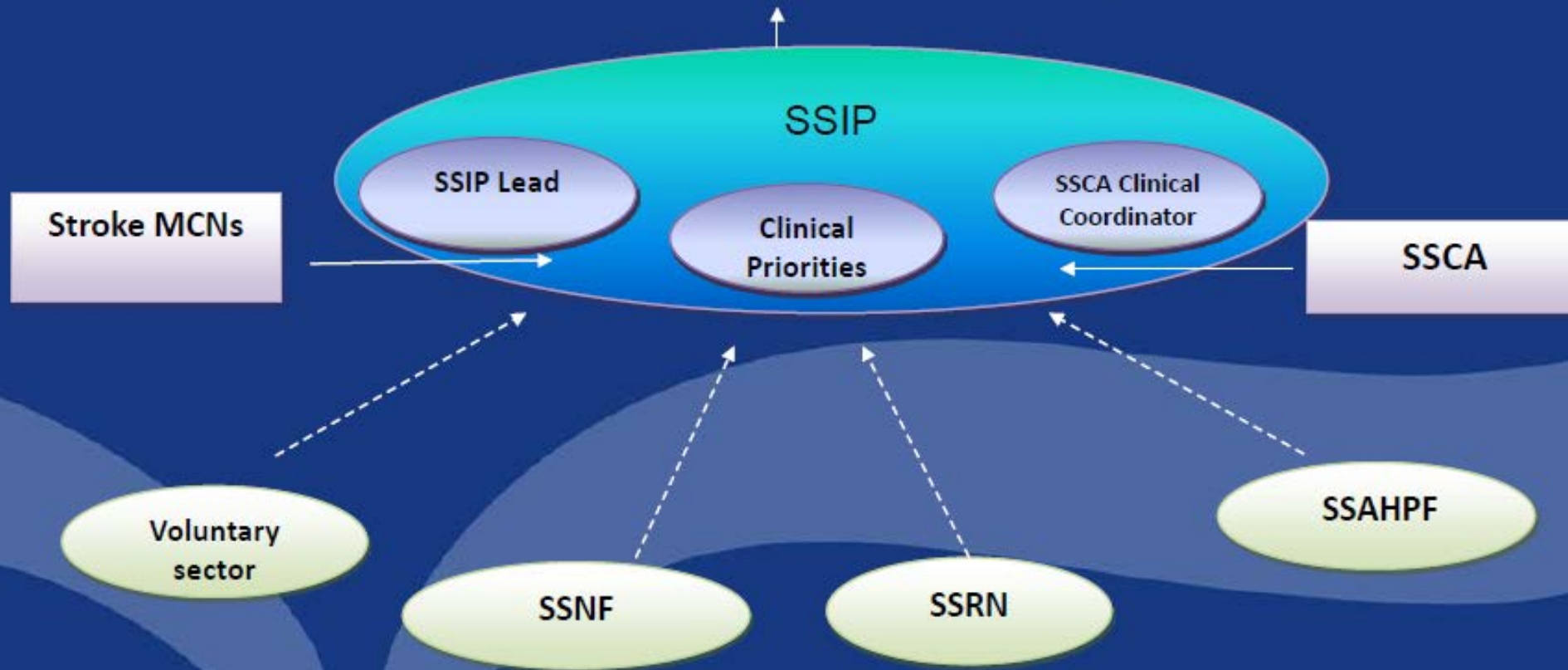


Scottish Stroke Improvement Plan

Prof Martin Dennis
Chair of National Advisory Committee

Scottish Stroke Improvement Programme (SSIP)

National Advisory Committee for
Stroke (NACS)



Examples where Stroke Nurses are key to improvement

- Implementation of Intermittent Pneumatic Compression to reduce risk of post stroke DVT/PE and to improve survival
- Supporting delivery of hyperacute stroke treatments
- Improving stroke unit nurses' knowledge and skills is central to this effort
- Monitoring uptake of training via the Training Template is vital.

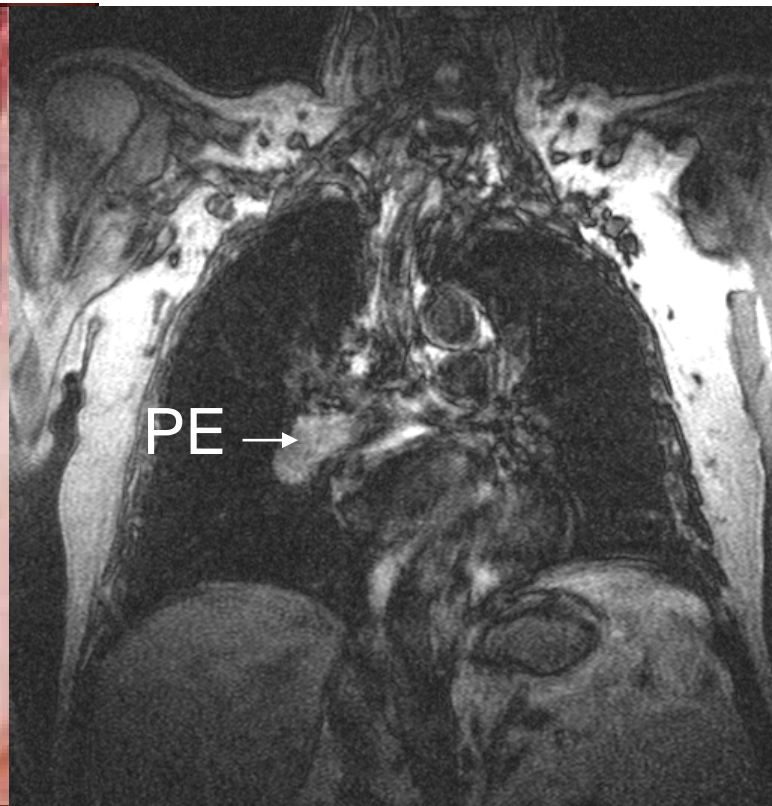
Venous thromboembolism after stroke



DVT 20%



5% symptomatic

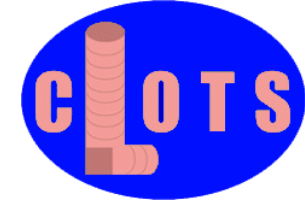


PE 10%

Intermittent Pneumatic Compression



CLOTS 3



Immobile Stroke patient
Day 0-3 of admission

Routine care



IPC



Duplex of both legs
at 7-10 days



Duplex of both legs
at 25-30 days



6 months follow up

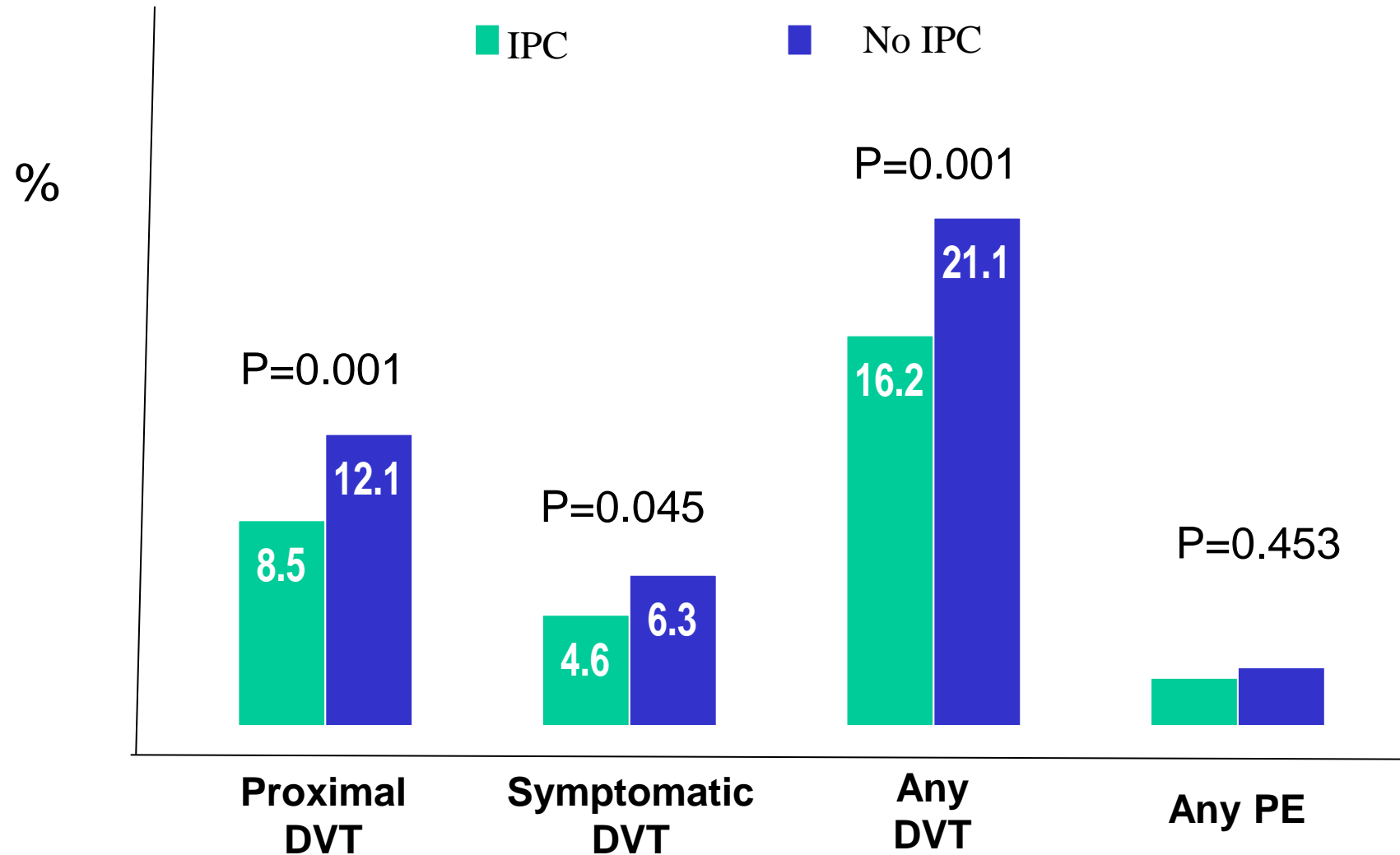
Routine care

No IPC

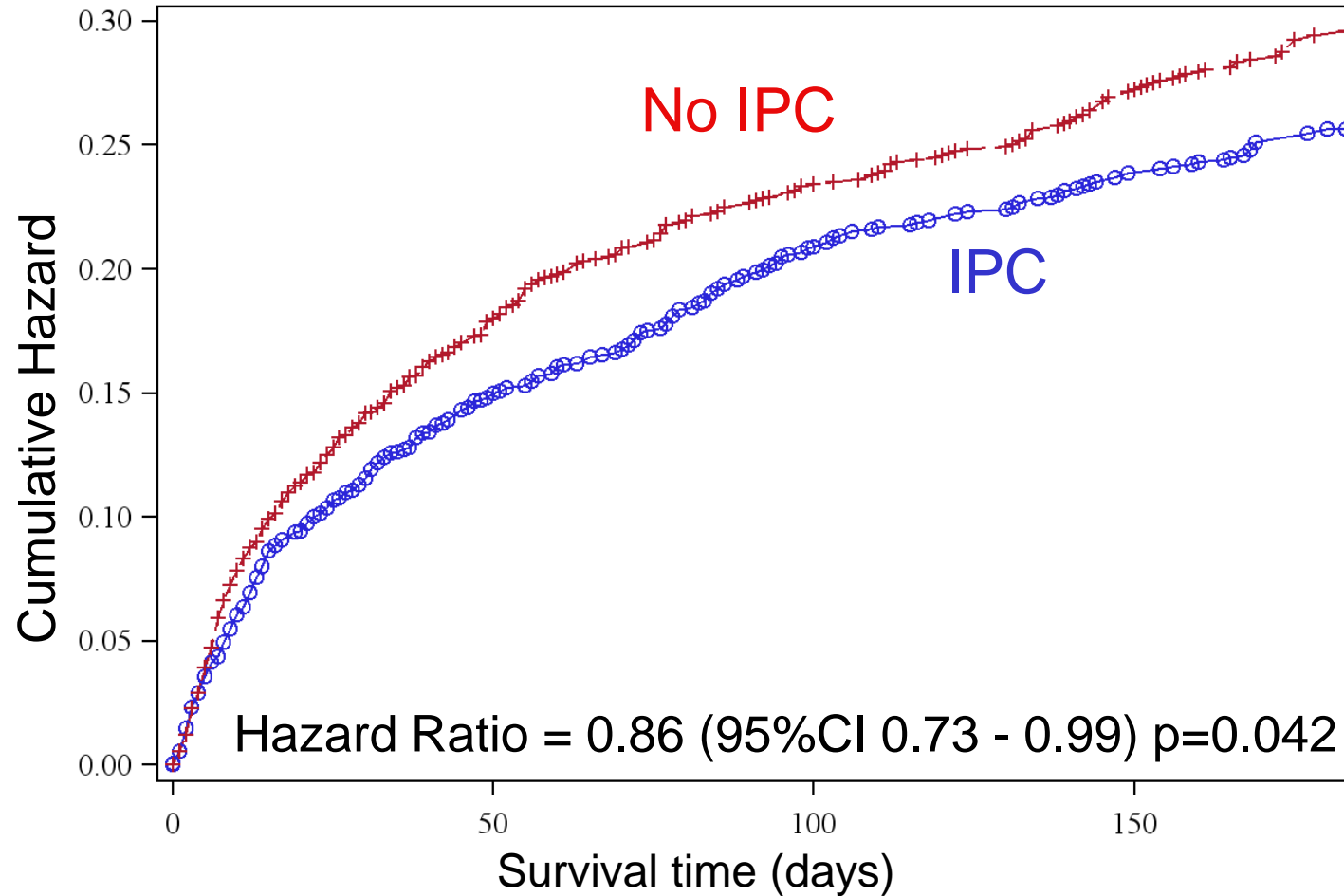


CLOTS 3 – Efficacy

30 day VTE outcomes



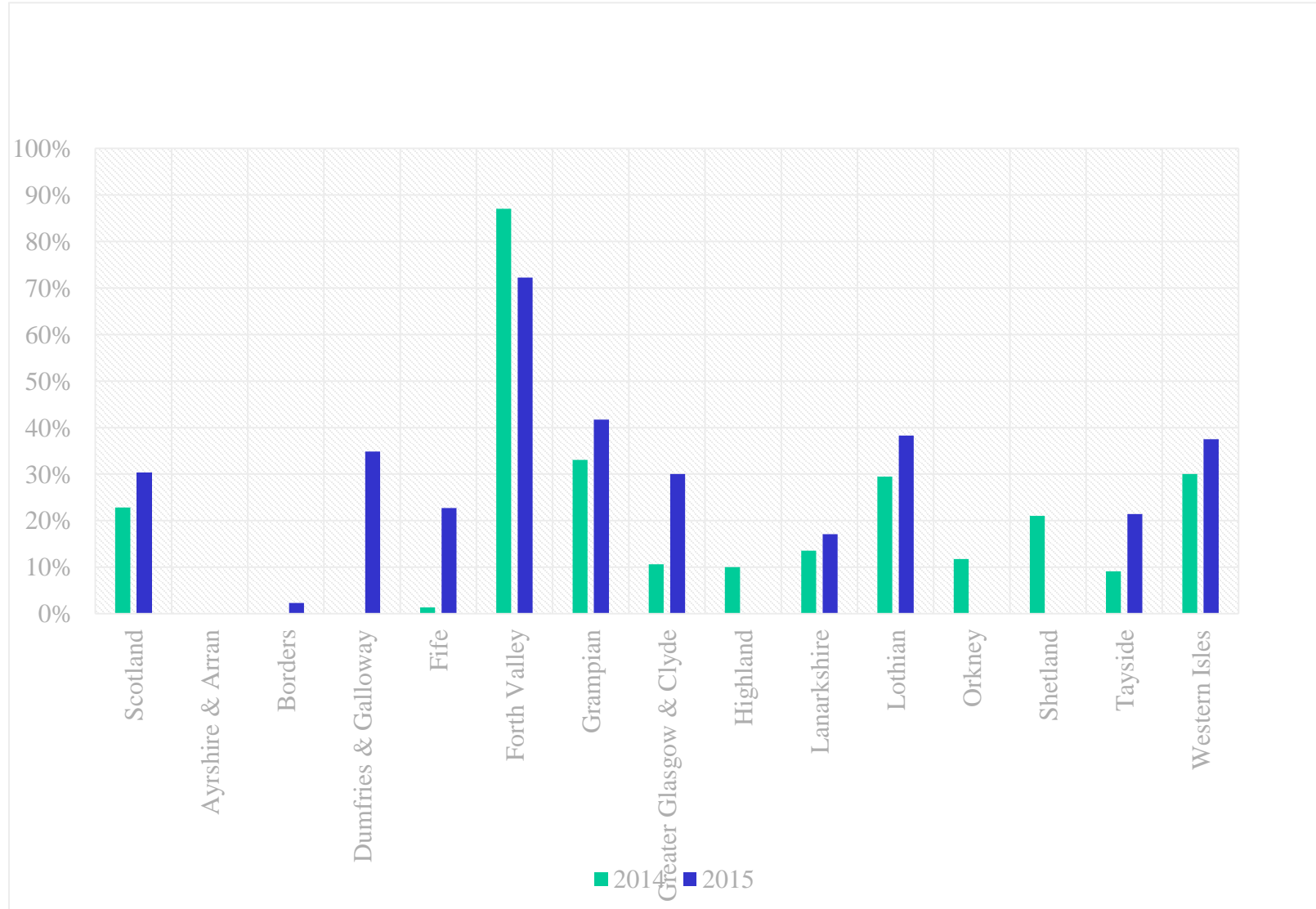
Probability of Death within 6 months



Conclusion from CLOTS 3

- IPC is feasible and safe
- IPC is an effective form of VTE prophylaxis NNT = 28 for proximal DVT
- It improves overall survival NNT~ 43 for death in 30 days
- Effective in ischaemic & haemorrhagic stroke
- Recommended by SIGN and NICE

Use of IPC by Health Board



Optimising use on your stroke unit

- Identify local champion(s)
- Include in their appraisal
- List of all nursing staff – ensure all have undergone training
 - Module at www.stroketraining.org
 - Practical experience on ward
- Some limited training for medics, physios etc to be aware and to ensure switched on
- A further workshop on 27th October 2015

Intermittent Pneumatic Compression

Six steps to prevent DVT and improve chances of survival after stroke

1 Attach sticky Printed name of person completing pathway

SignatureDate completed / /

2 Is patient able to walk without help to the toilet?
 Is the patient on an end of life pathway?
 Has the patient got skin breaks on both legs?
 Has the patient got severe oedema?
 Has the patient got severe peripheral vascular disease

➔ If any answers Yes
Do not offer IPC
(tick reason)

3 If all answers No
Offer IPC

4 If patient has capacity discuss

- Pros – reduced DVT and improved chances of survival
- Cons – possible discomfort, noise and mild skin problems

5 If agrees to IPC

- Measure thigh at widest point
- Select appropriate size of thigh-length sleeve
- Apply sleeve – checking fit
- Attach to controller
- Turn on controller
- Check working properly – no alarms after 30 mins
- Record “Thigh length IPC” use on medication chart – 3x daily

6 Tick reason for permanently removing sleeves – date of removal? / /

- Patient becomes mobile
- Patient entered onto end of life pathway
- Has worn for a month
- Patient refuses to wear IPC despite encouragement
- Skin problems or falls caused by IPC sleeves
- Other. Specify

Optimising use on your stroke unit

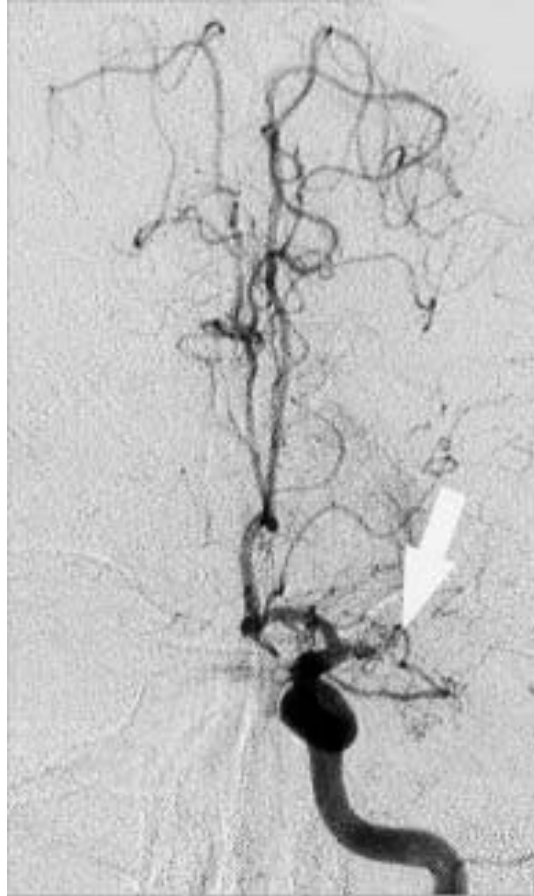
- Introduce pathway on ward
 - In patients admission pack
 - Laminated version on wall
- Link with local SSCA auditor
- Obtain monthly reports of use
- Exception reporting to establish why not offered

If agrees to IPC

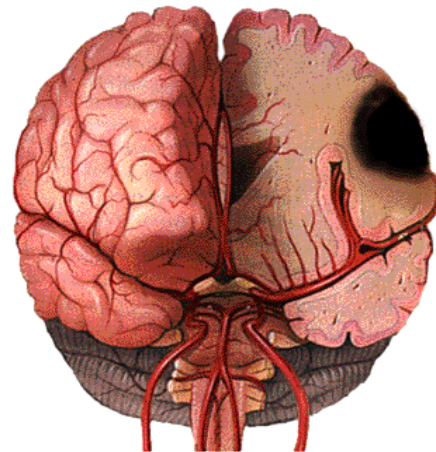
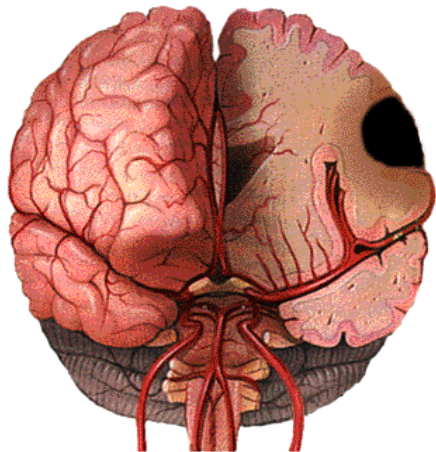
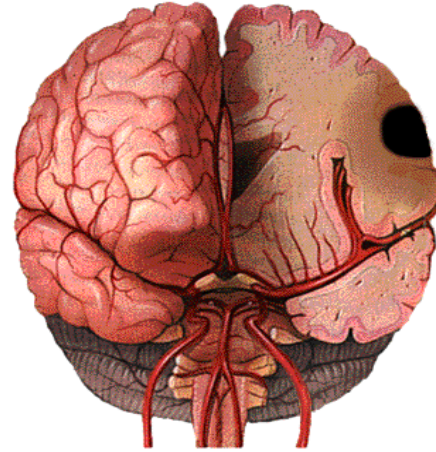
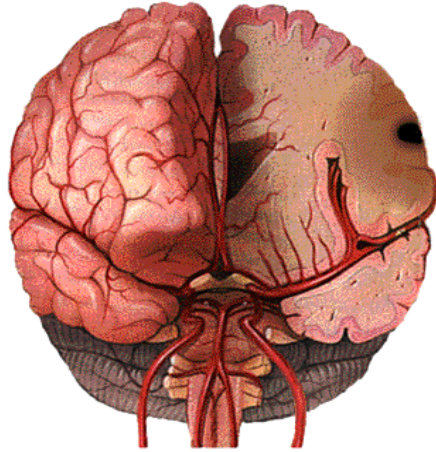
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The next big thing!!

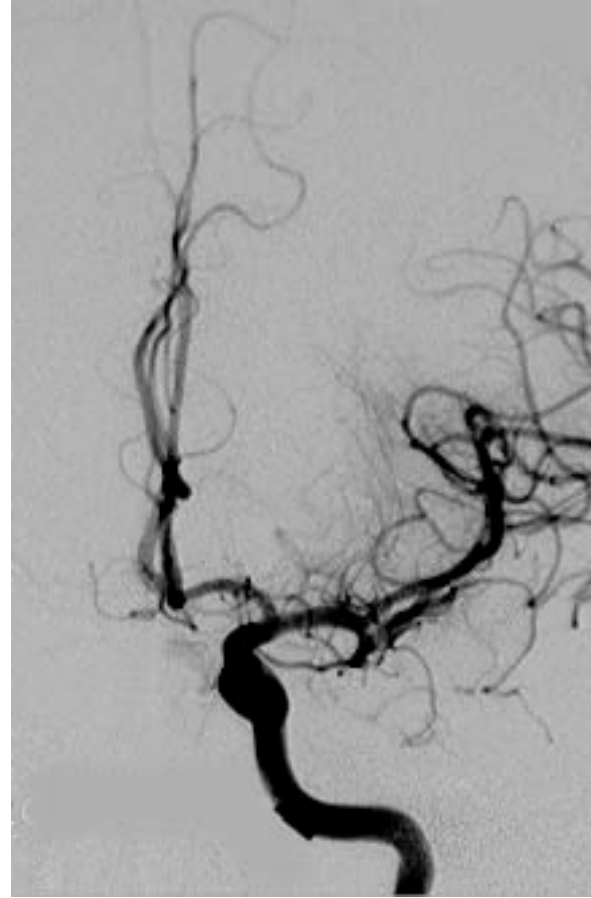
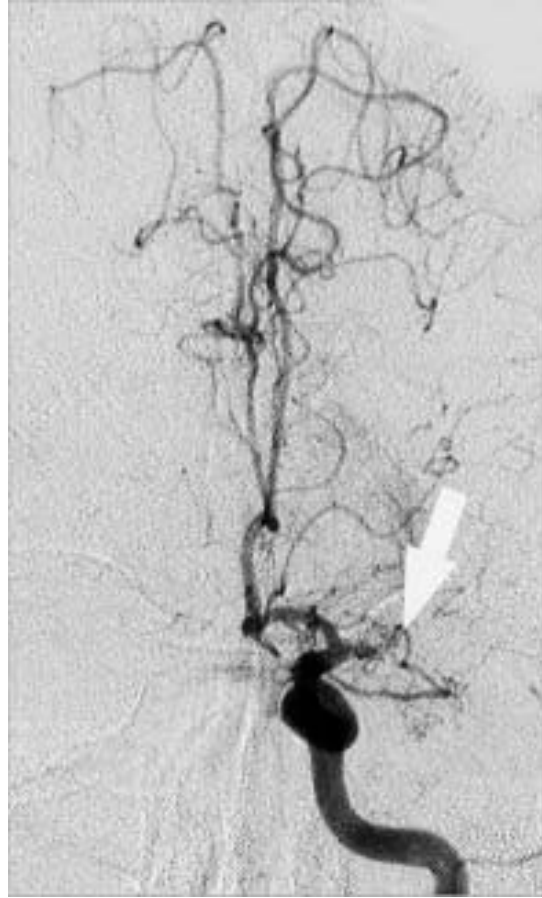
In ischaemic stroke an artery
blocks



The brain damage increases over hours



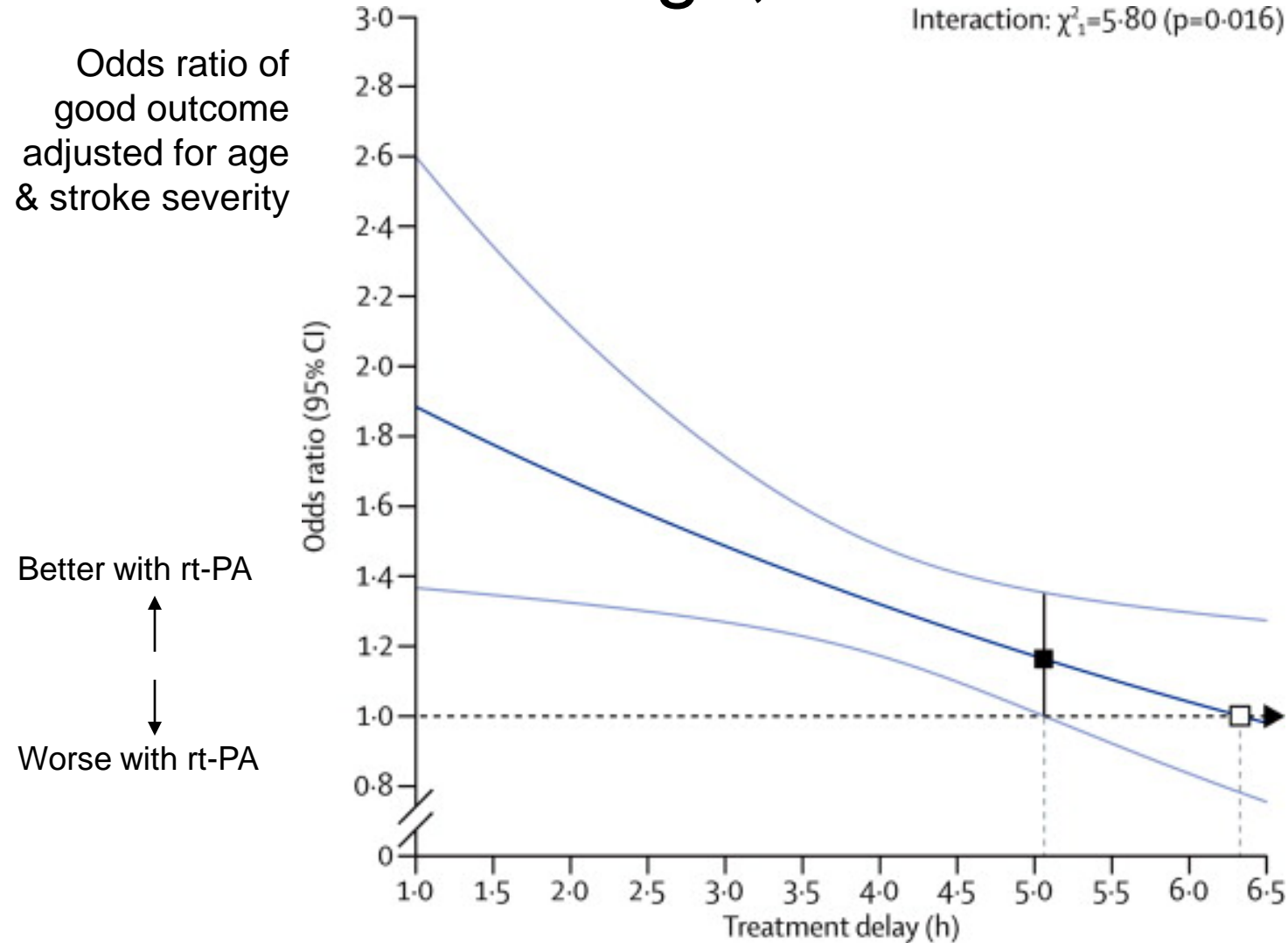
Open the blocked artery
reduce the brain damage



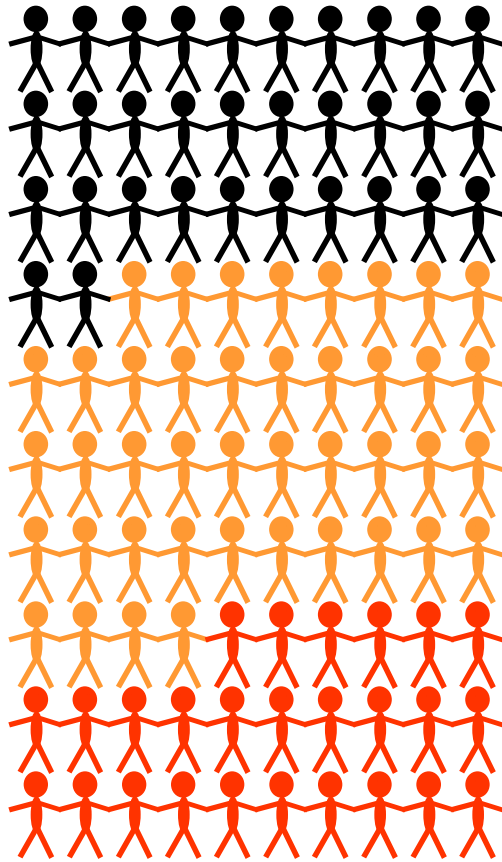
Methods to unblock arteries




- Thrombolytic drugs (CLOT busters)
 - Proven to be effective in large trials
 - Improves outcomes if given within 4.5 hrs
- CLOT retrieval (thrombectomy)
 - Needs an interventional neuroradiologist, angiogram suite and team

Time is brain – earlier reperfusion, less brain damage, better outcome

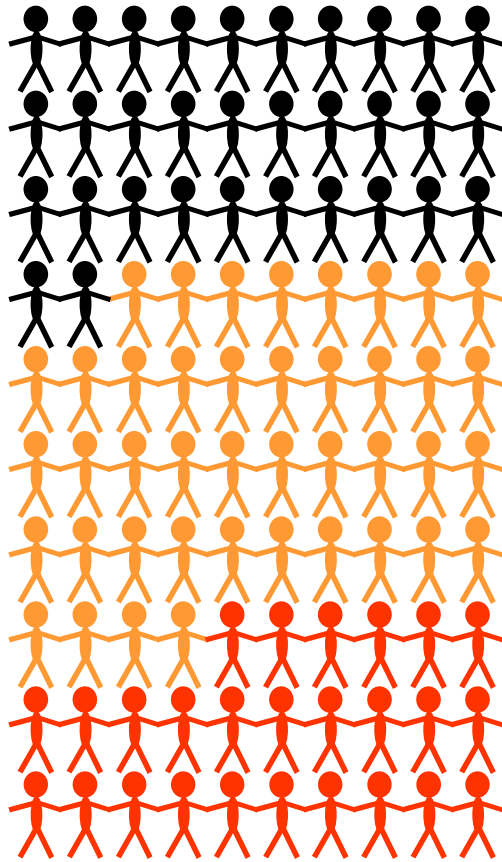


No reperfusion treatment

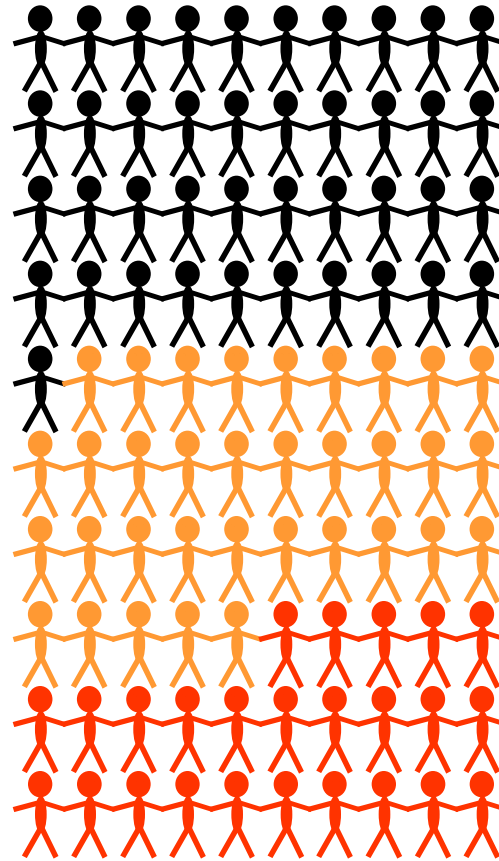


-  Independent
-  Disabled
-  Dead

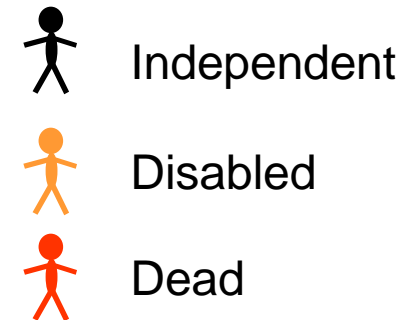
Alteplase within 3 hours



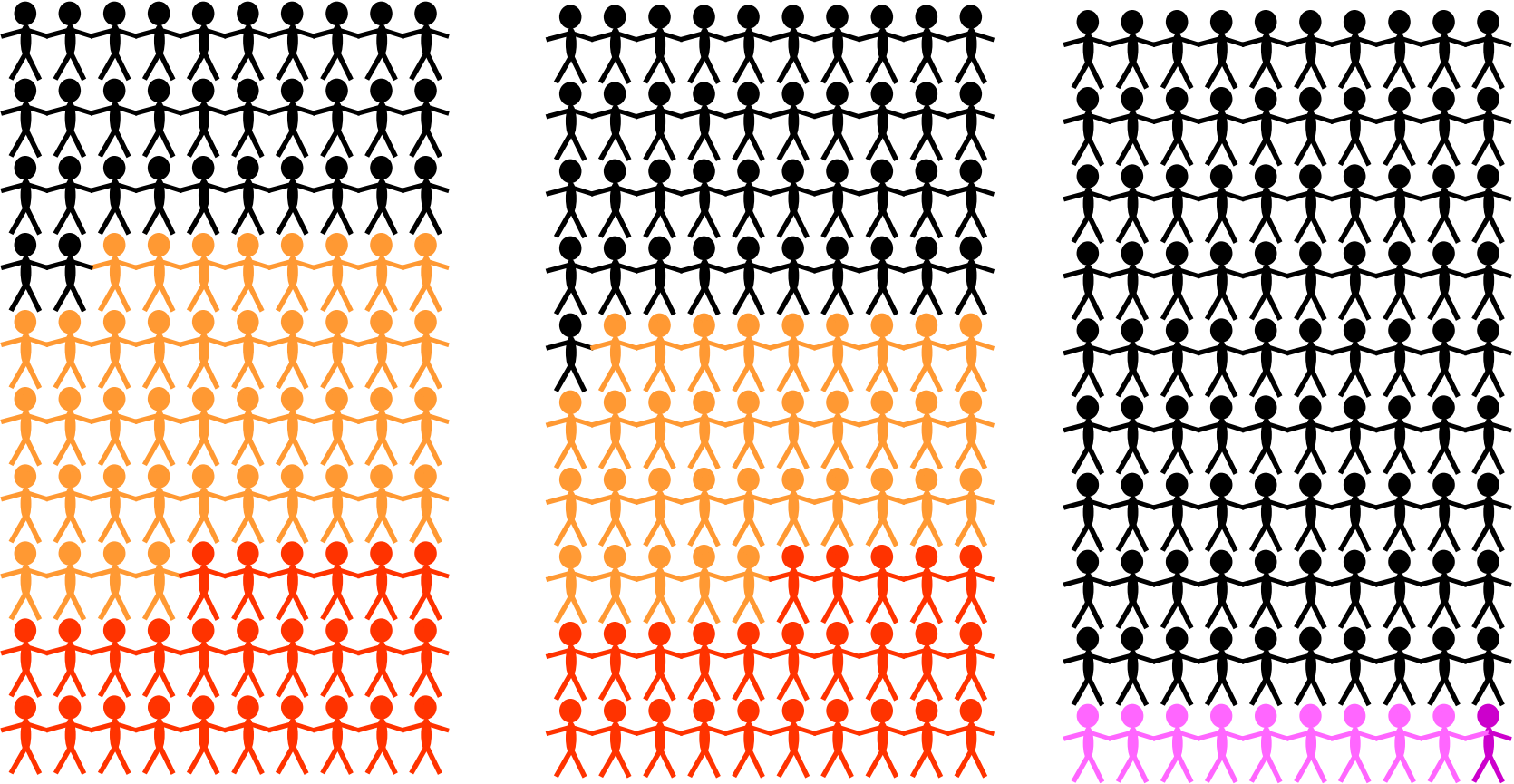
No treatment



Alteplase



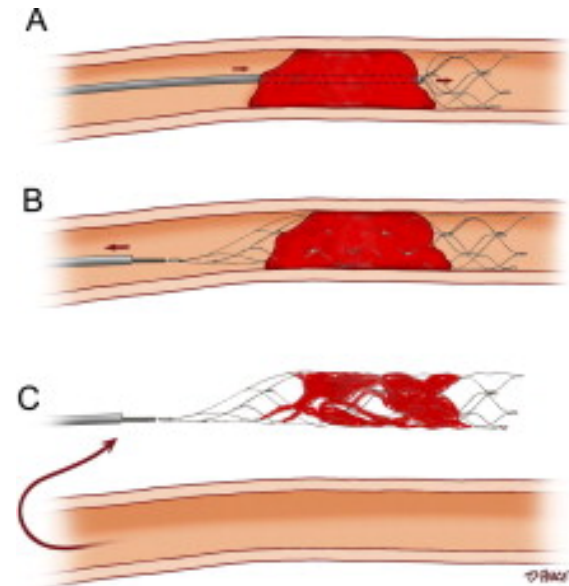
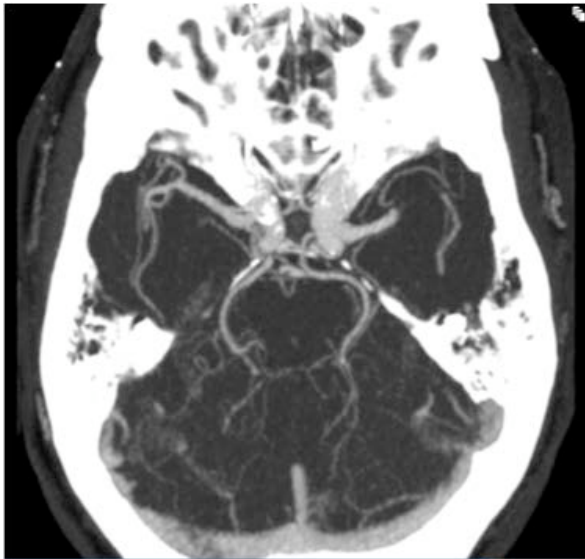
Alteplase within 3 hours of ischaemic stroke



Net benefit

CLOT retrieval

- Can unblock large arteries
 - In patients who have had alteplase
 - In patients who cannot have alteplase



Clot retrieval

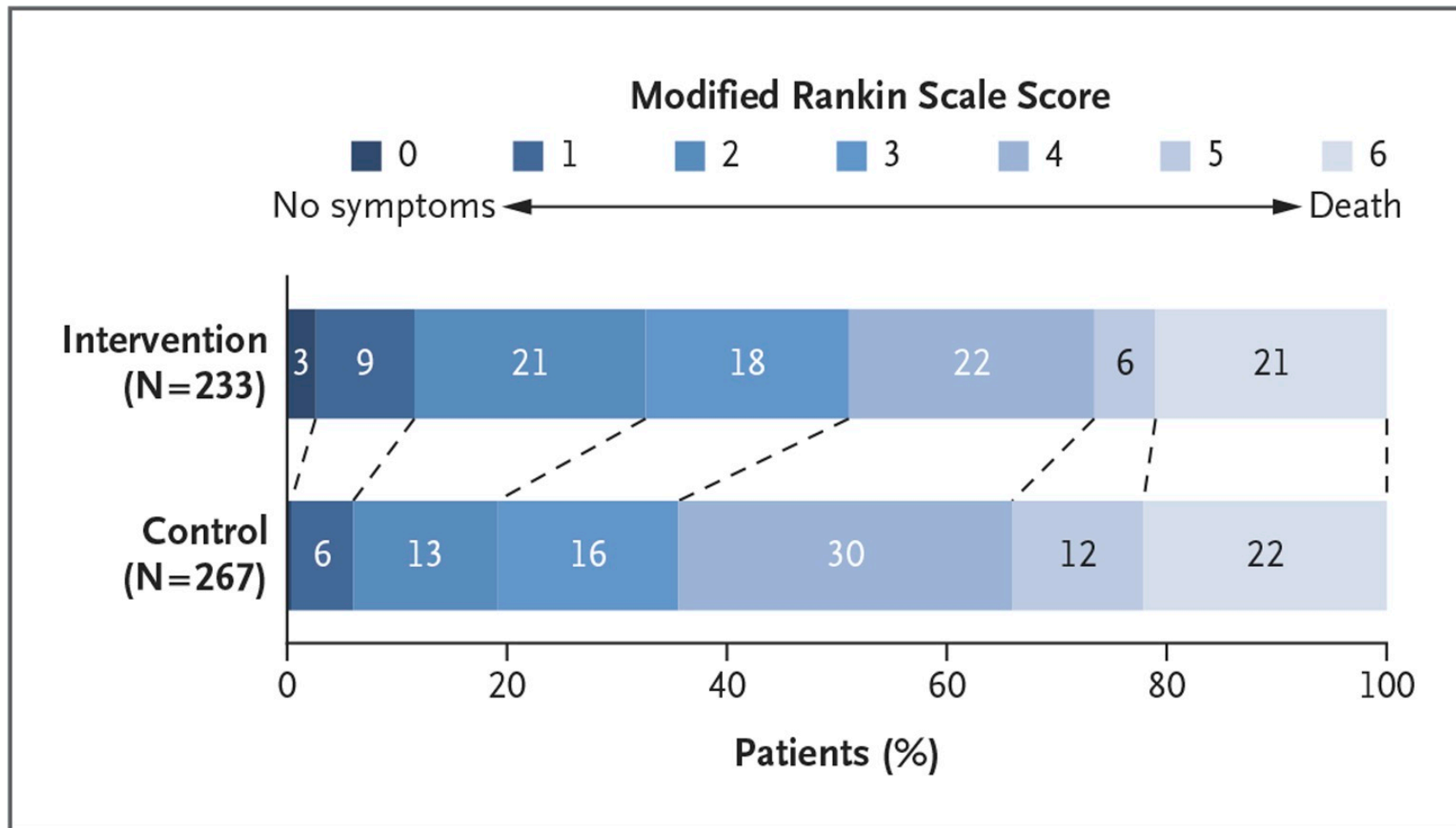
Need

- Catheter lab with appropriate staffing
- Appropriate kit
- Very short “door to groin” times!

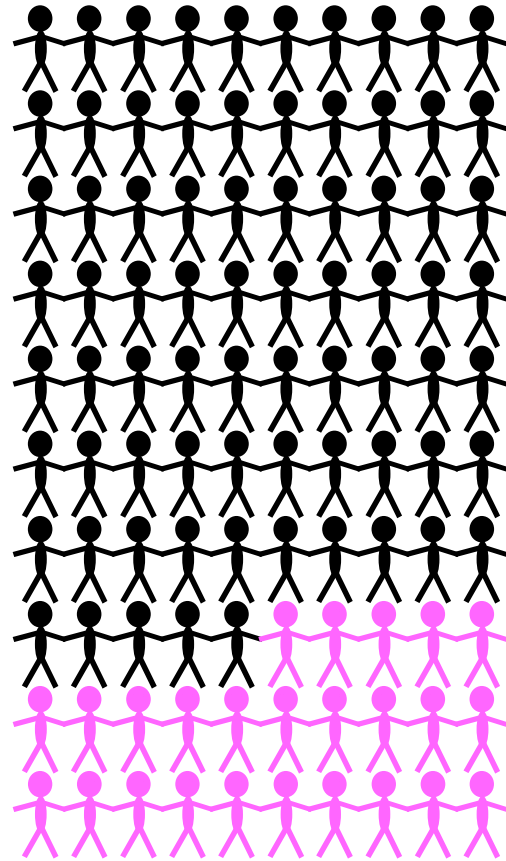


MR CLEAN (n=500)

Berkhemer OA et al. N Engl J Med 2015;372:11-20



CLOT retrieval within 6 hours of ischaemic stroke



Treat 100 patients

25 will avoid disability

Stroke nurses contribution?

STAT trained outreach nurses can:

- Confirm eligibility rapidly
- Facilitate immediate scanning
- Minimise door to needle times for thrombolysis
- Care for the patient through the process
- Provide post procedure care of arterial puncture
- Monitor the patients post procedure