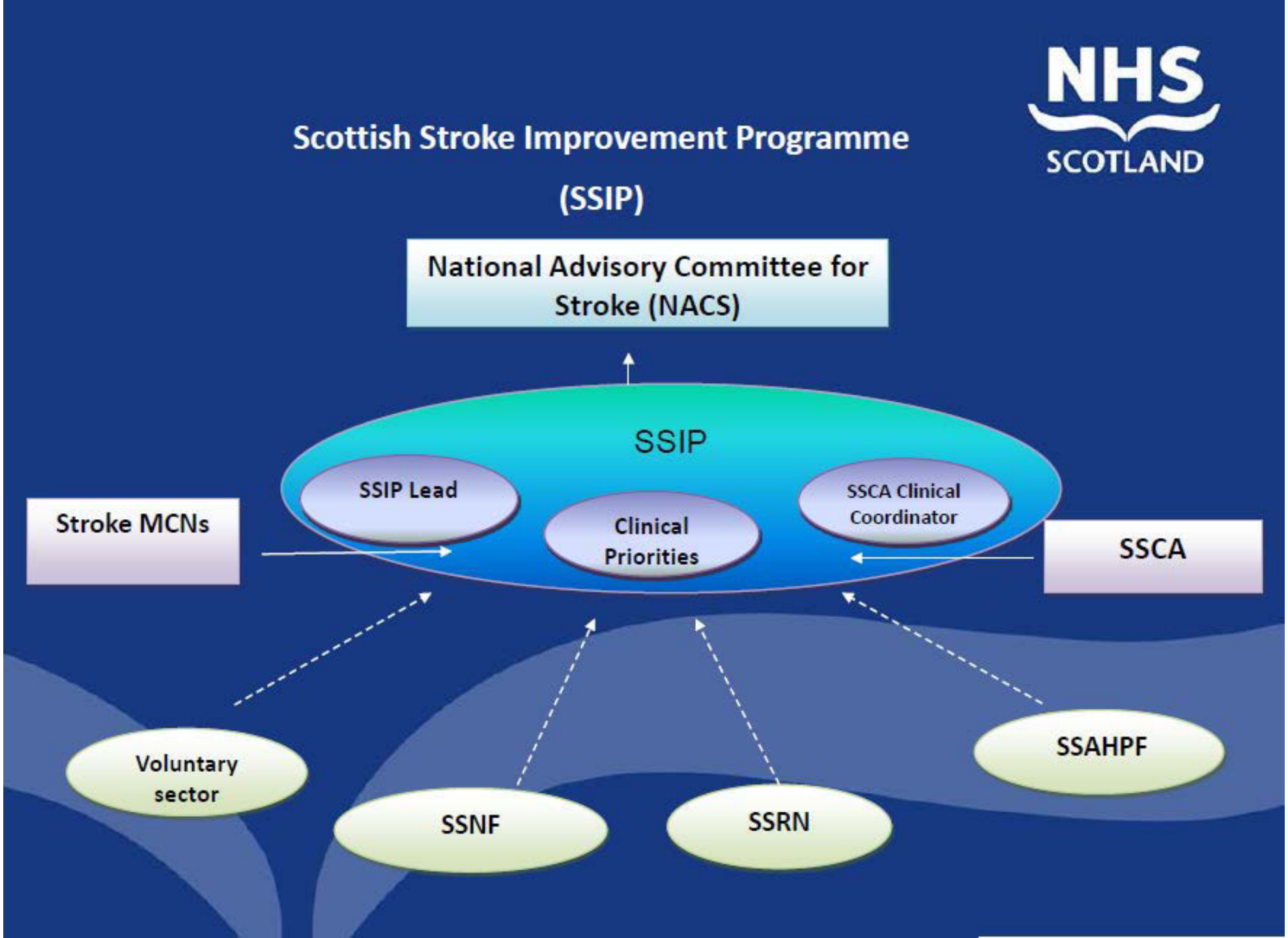
Scottish Stroke Improvement Plan

Prof Martin Dennis

Chair of National Advisory Committee

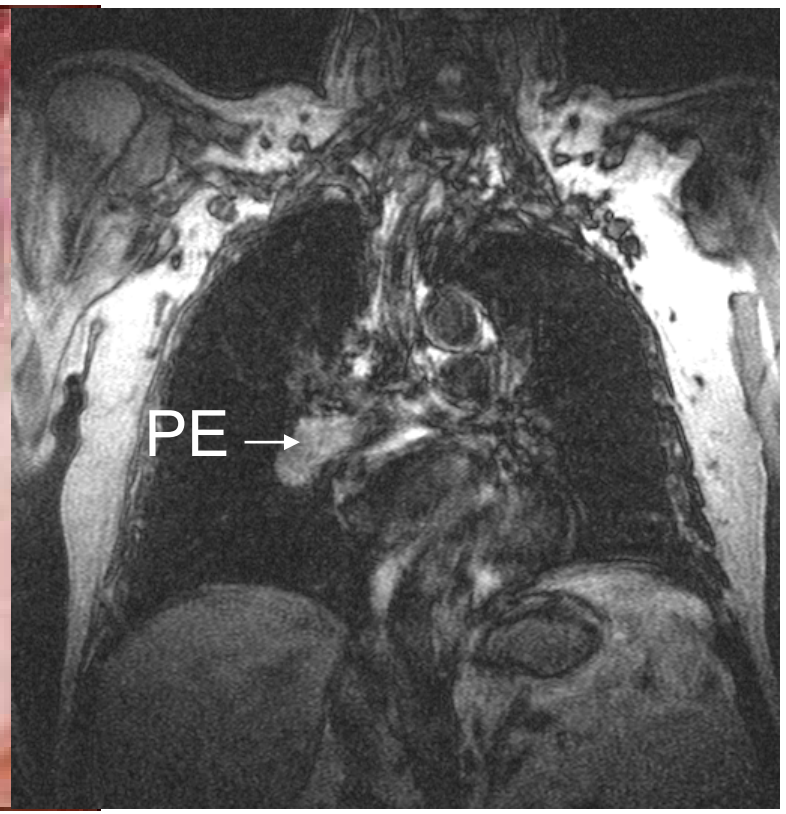

Scottish Stroke Improvement Programme
(SSIP)
NHS SCOTLAND
National Advisory Committee for Stroke (NACS)
SSIP
SSIP Lead
Clinical Priorities
SSCA Clinical Coordinator
Stroke MCNs
SSCA
Voluntary sector
SSNF
SSRN
SSAHPF

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

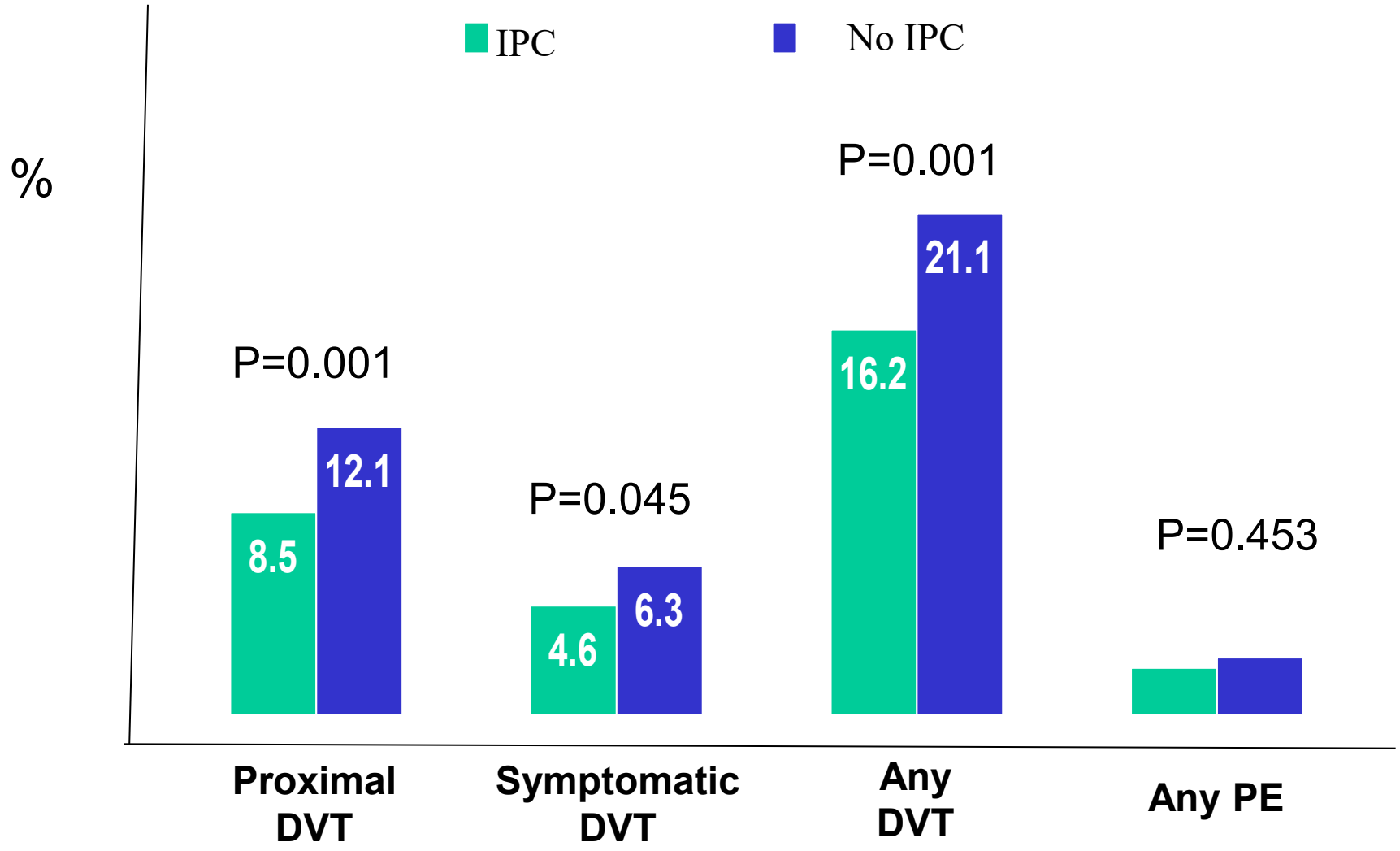
Routine care
No IPC

Duplex of both legs
at 7-10 days

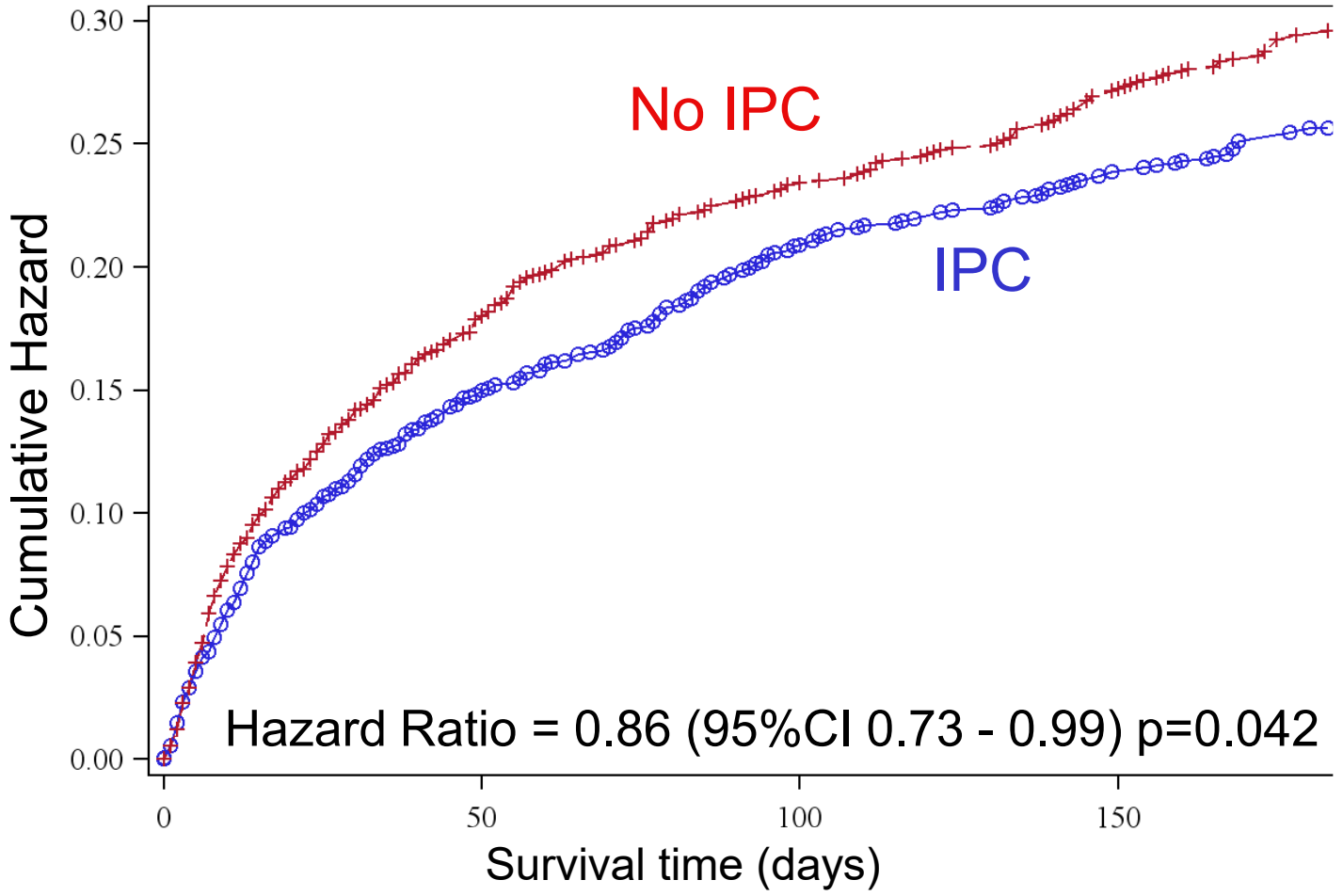
Duplex of both legs
at 25-30 days

6 months follow up

CLOTS 3 – Efficacy
30 day VTE outcomes



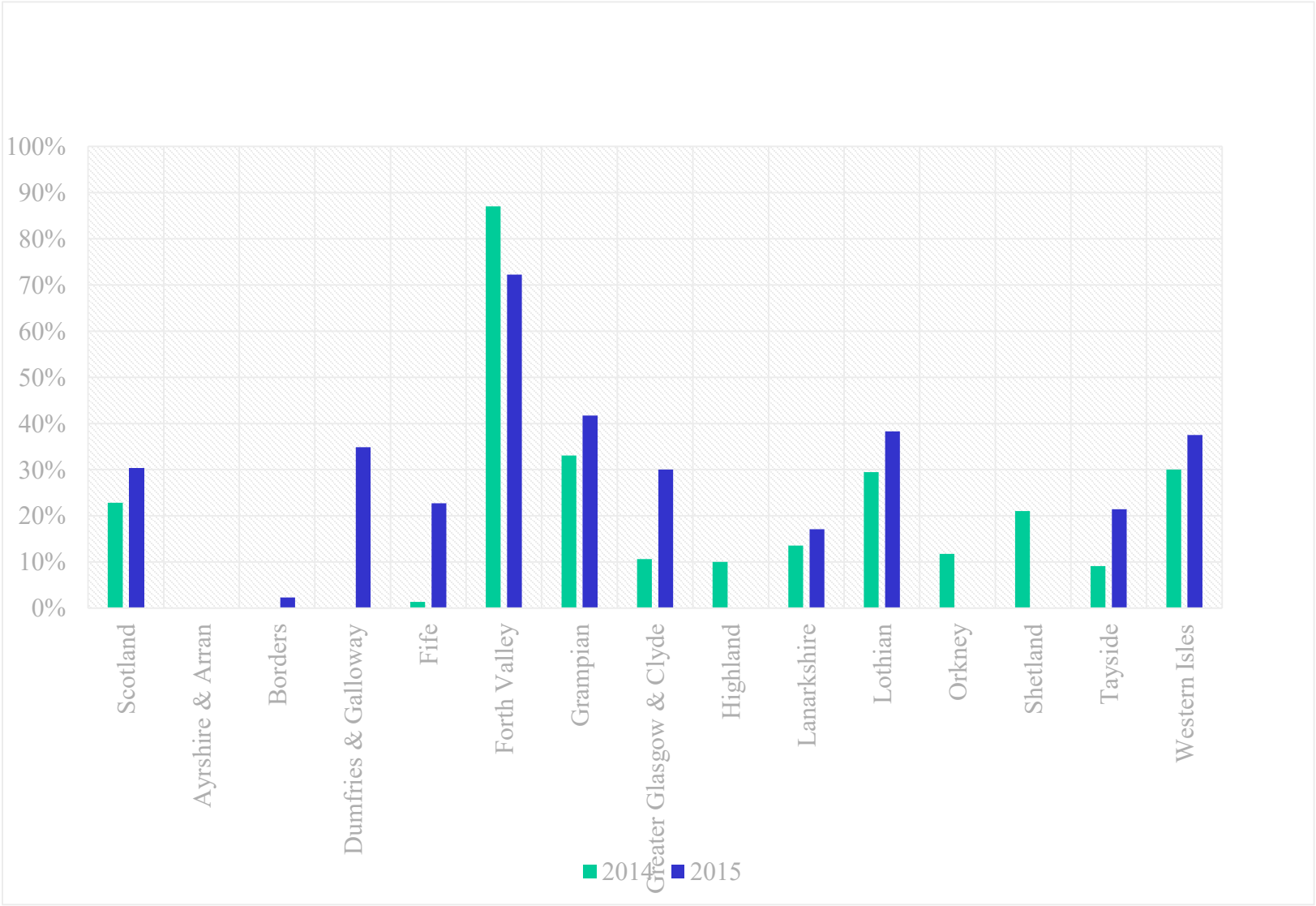
Probability of Death within 6 months



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 .....

Signature .....Date 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

- ❑ 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
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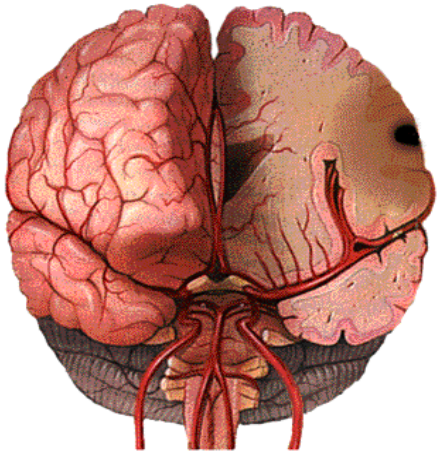
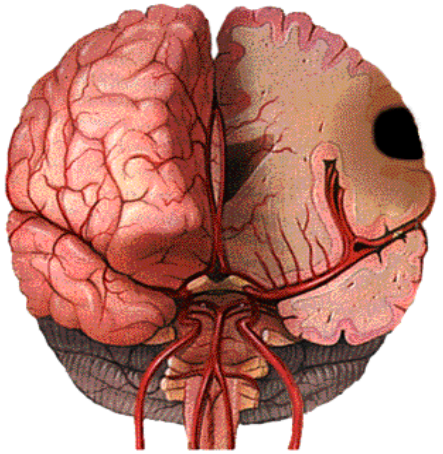
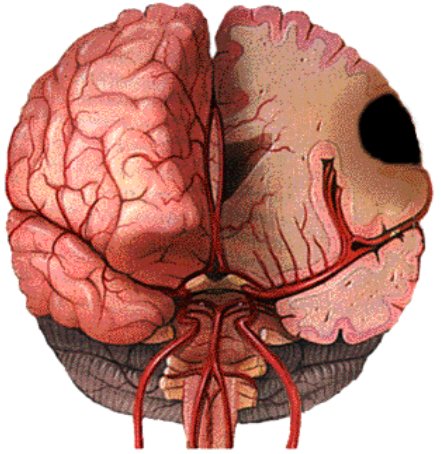
The next big thing!!

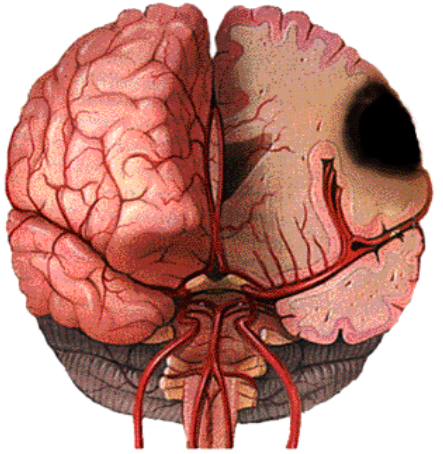
In ischaemic stroke an artery blocks

The brain damage increases over hours

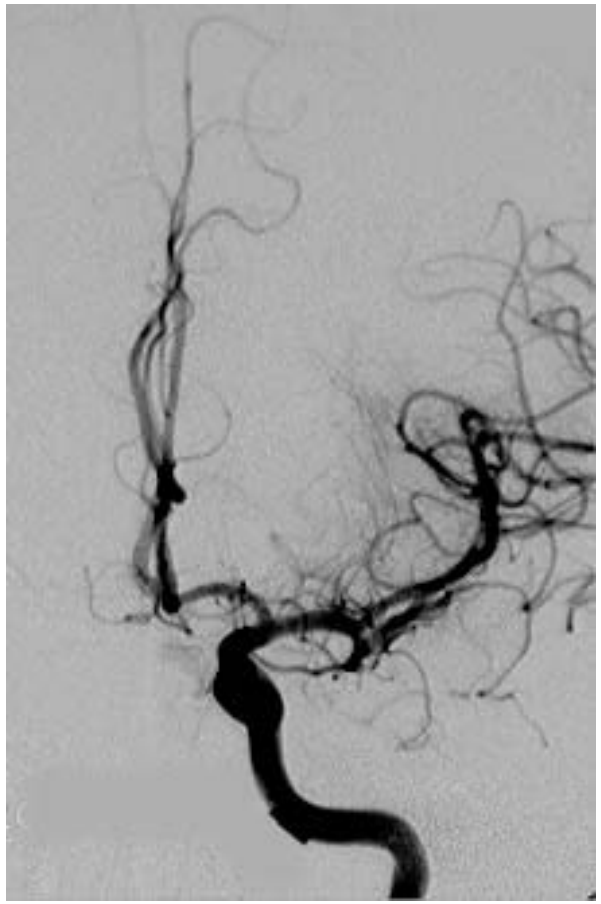








Open the blocked artery reduce the brain damage

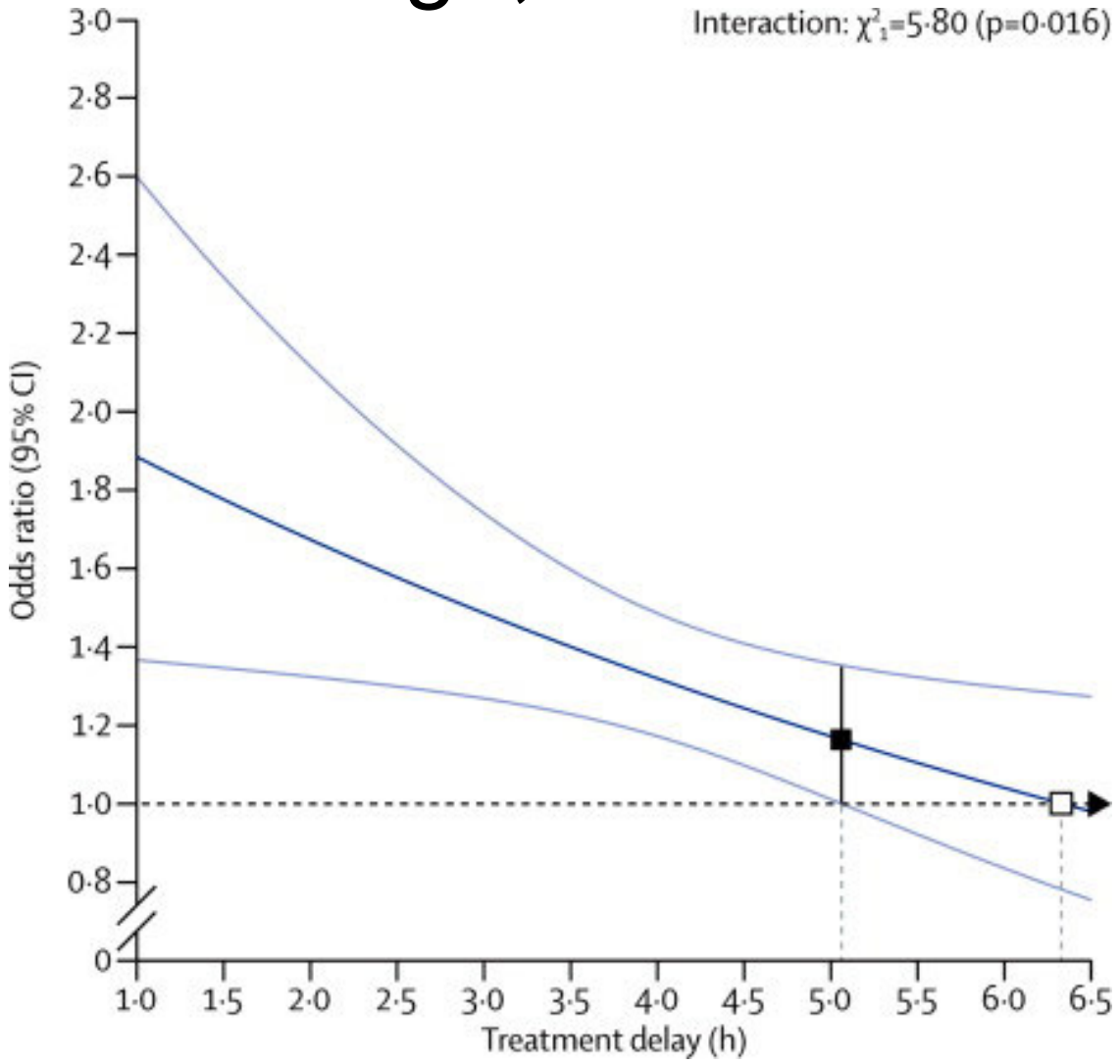


Methods to unblock arteries

- 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

Odds ratio of good outcome adjusted for age & stroke severity

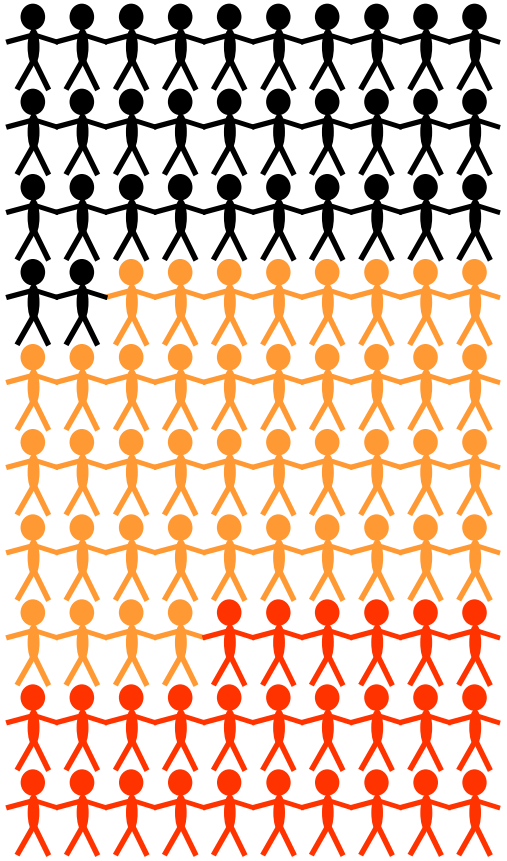


Better with rt-PA

Worse with rt-PA

Stroke Thrombolysis Trialists Collaboration Lancet August 2014

No reperfusion treatment

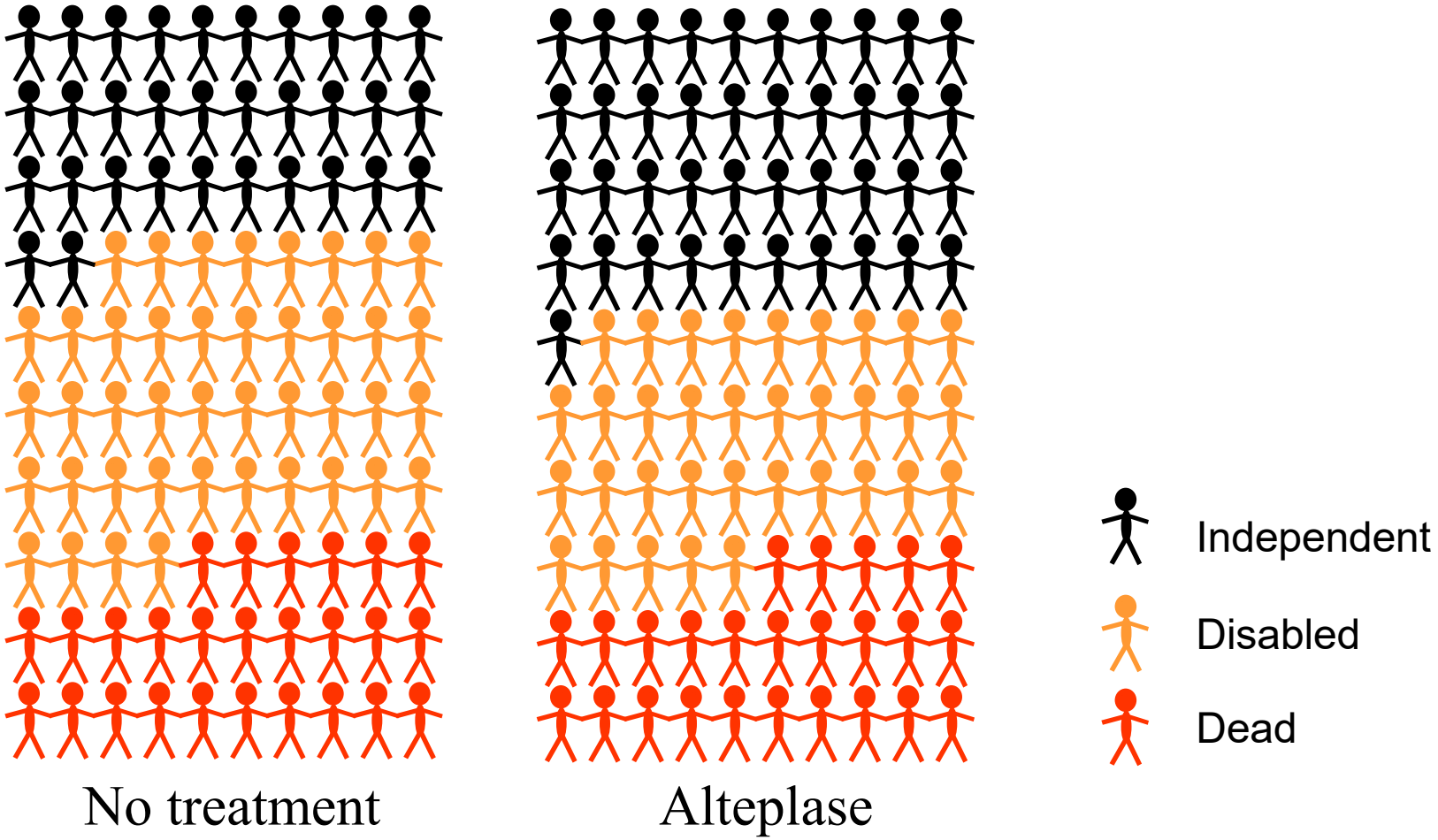


Independent

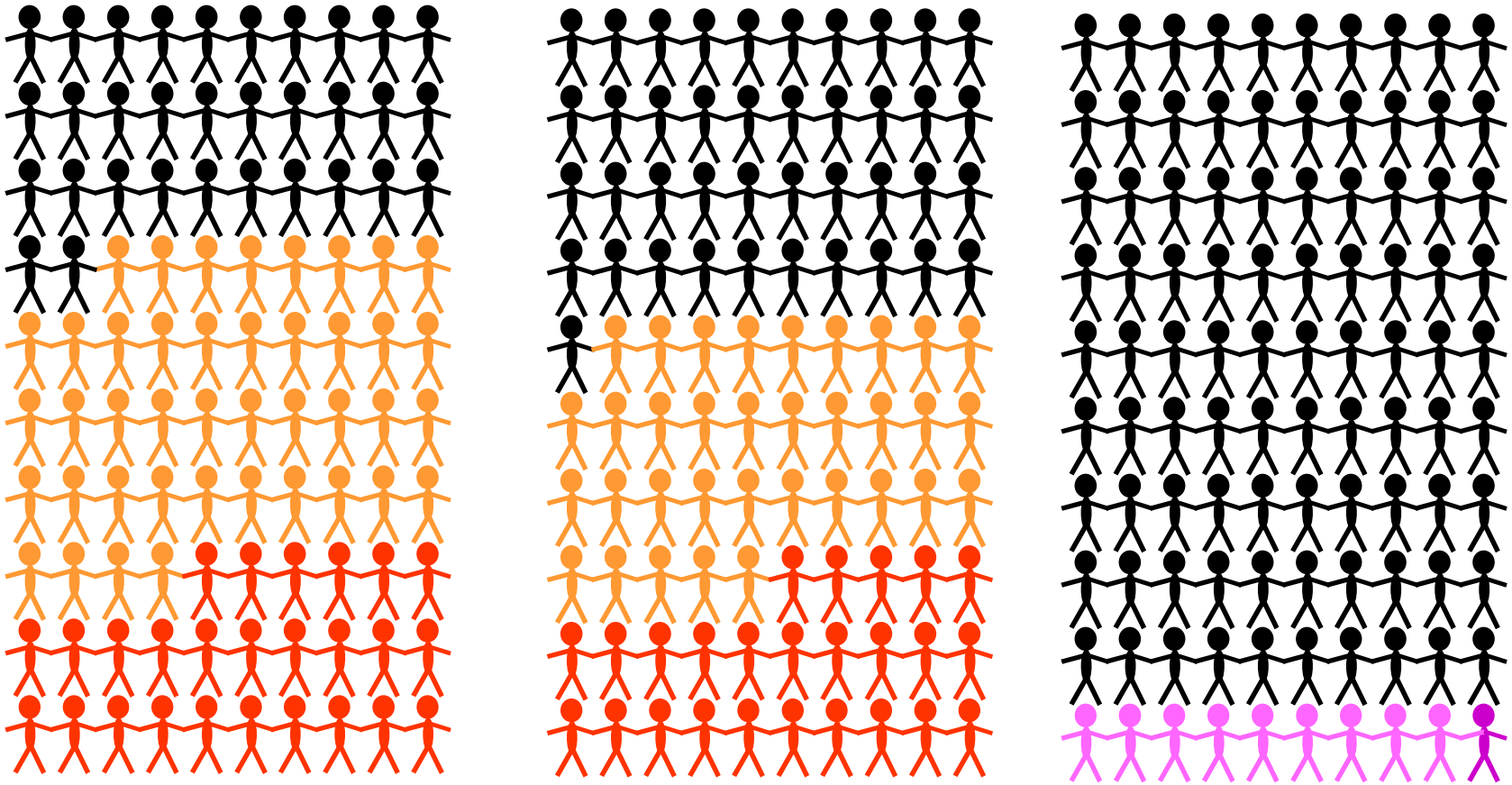
Disabled

Dead

Alteplase within 3 hours



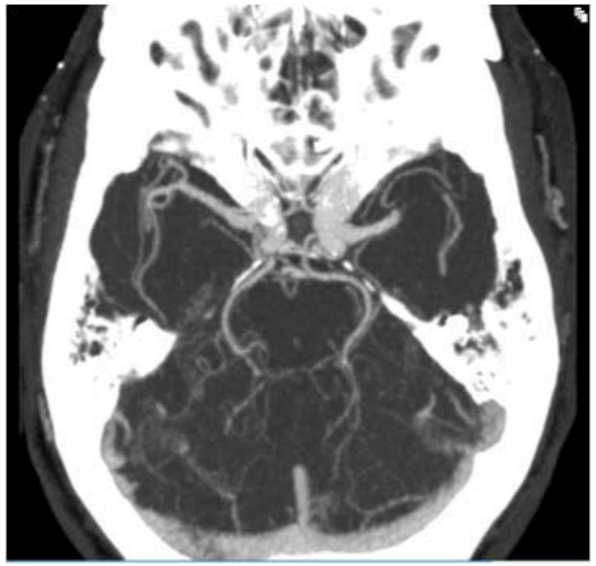
Alteplase within 3 hours of ischaemic stroke

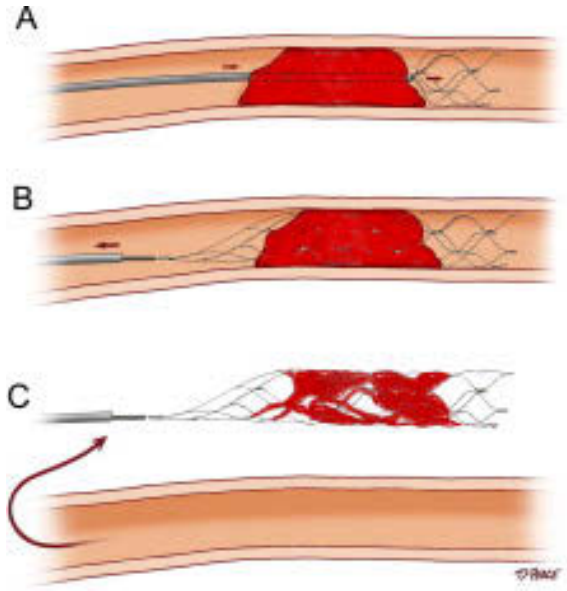


Net benefit

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

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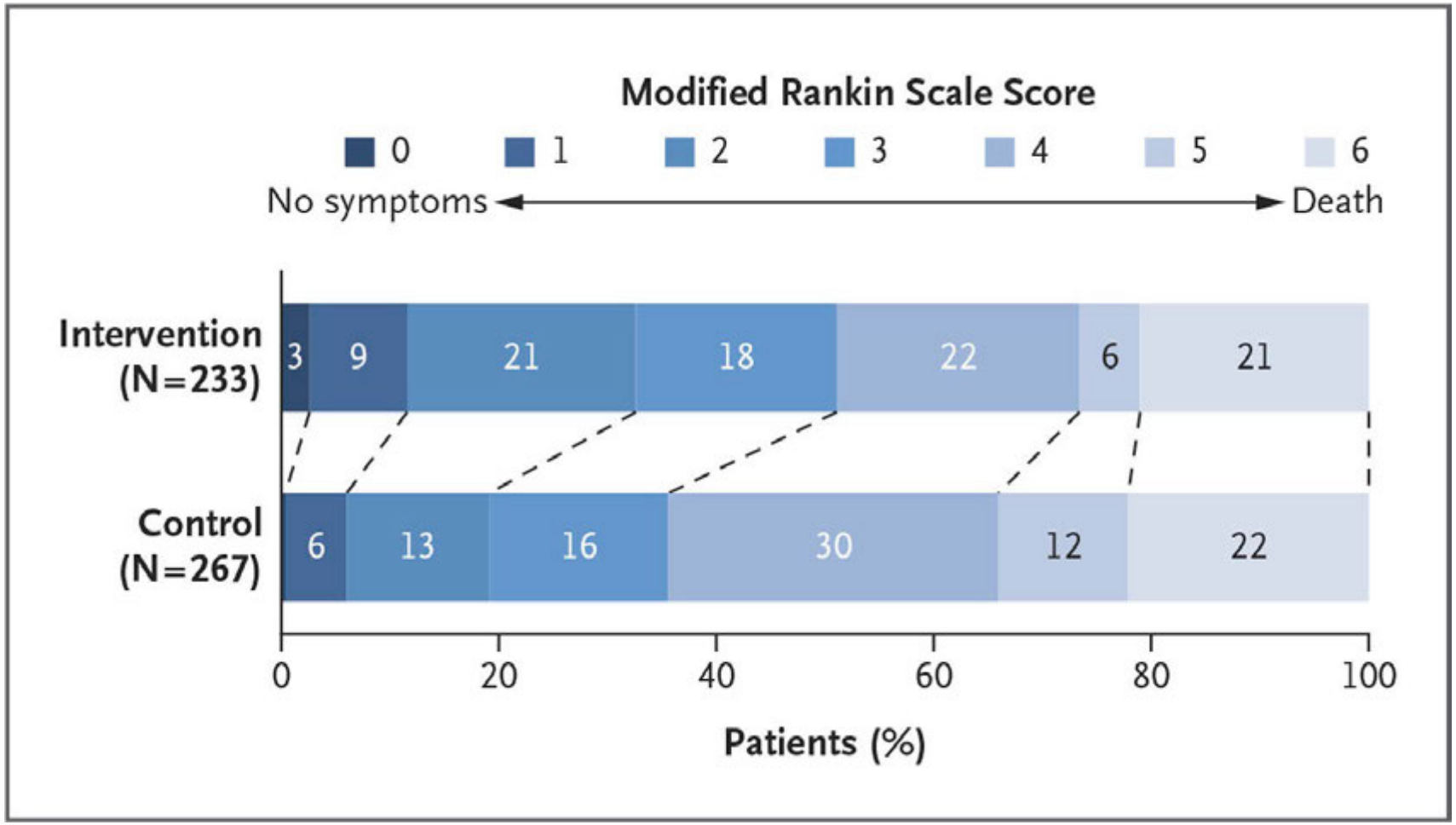
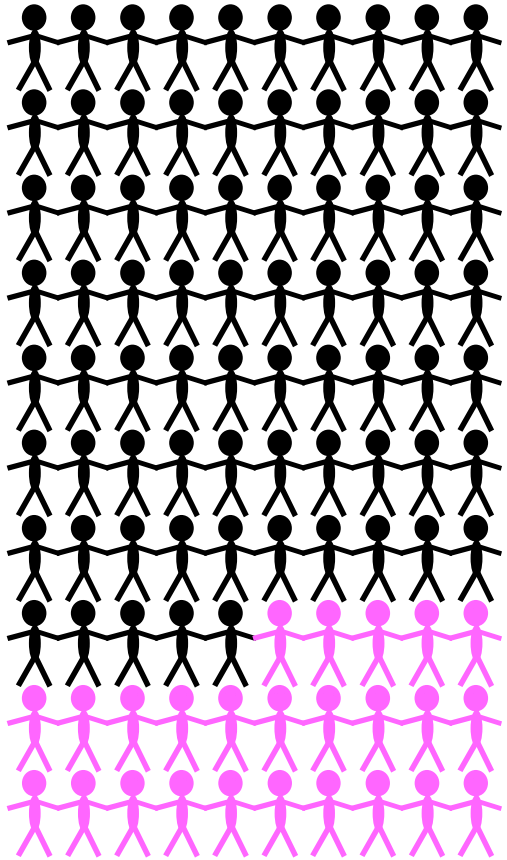


CLOT retrieval within 6 hours of ischaemic stroke



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