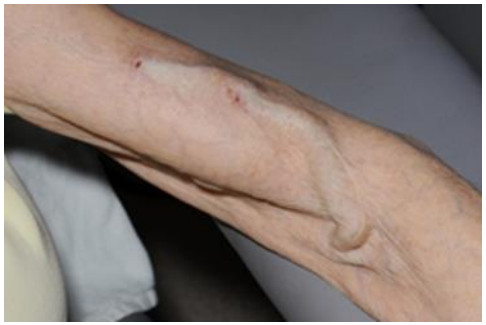

Vascular Access Care

Katie Fielding

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MDT Fellow (Vascular Access), UK Renal Registry
Co-Chair, BRS Vascular Access
Measurement and Understanding Workstream Chair, KQuIP

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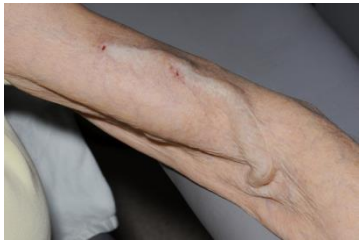
Vascular Access …



Pre Dialysis Clinic
Patient chooses AVF

Vascular Surgery
Successful AVF

Haemodialysis
Successful use of AVF

Assessment
Surveillance
Cannulation
Intervention

Longevity of AVF

Minimise complications

Effective HD Treatment

Ideal Vascular Access Process

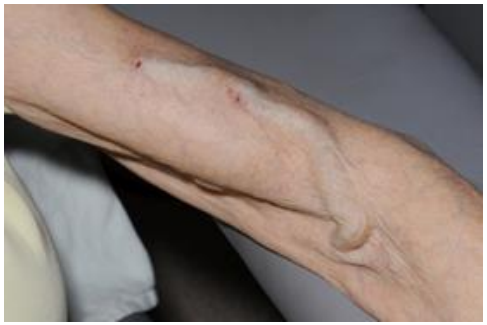
Challenges in Vascular Access

Timely VA Creation

Patient Empowerment
- Choice
- Care

Patient Info

High Primary Failure Rate of AVFs



Pathways

Cannulation

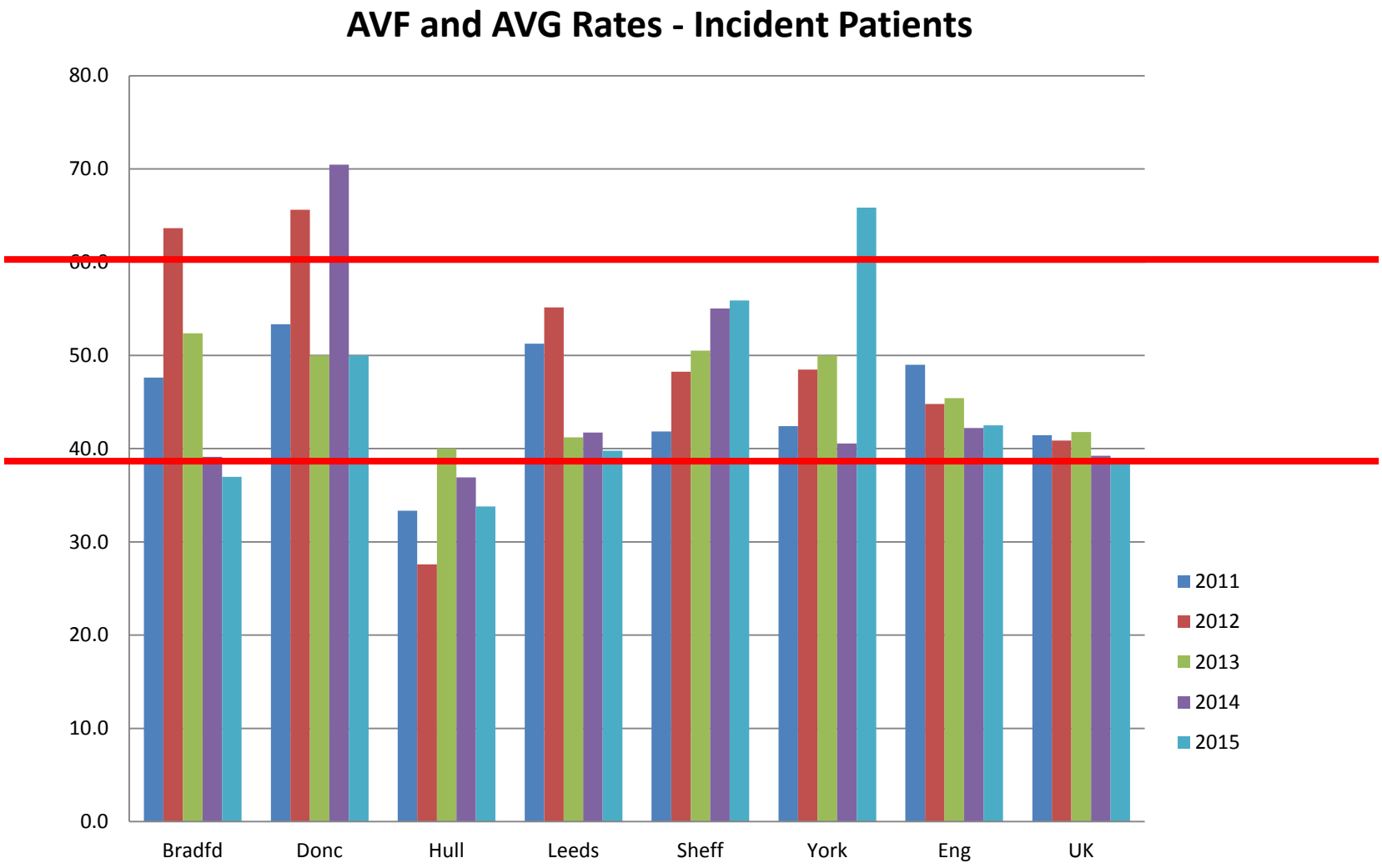
Multi-Specialty Working

Complications
- Longevity
- Infection
- USAGE!!

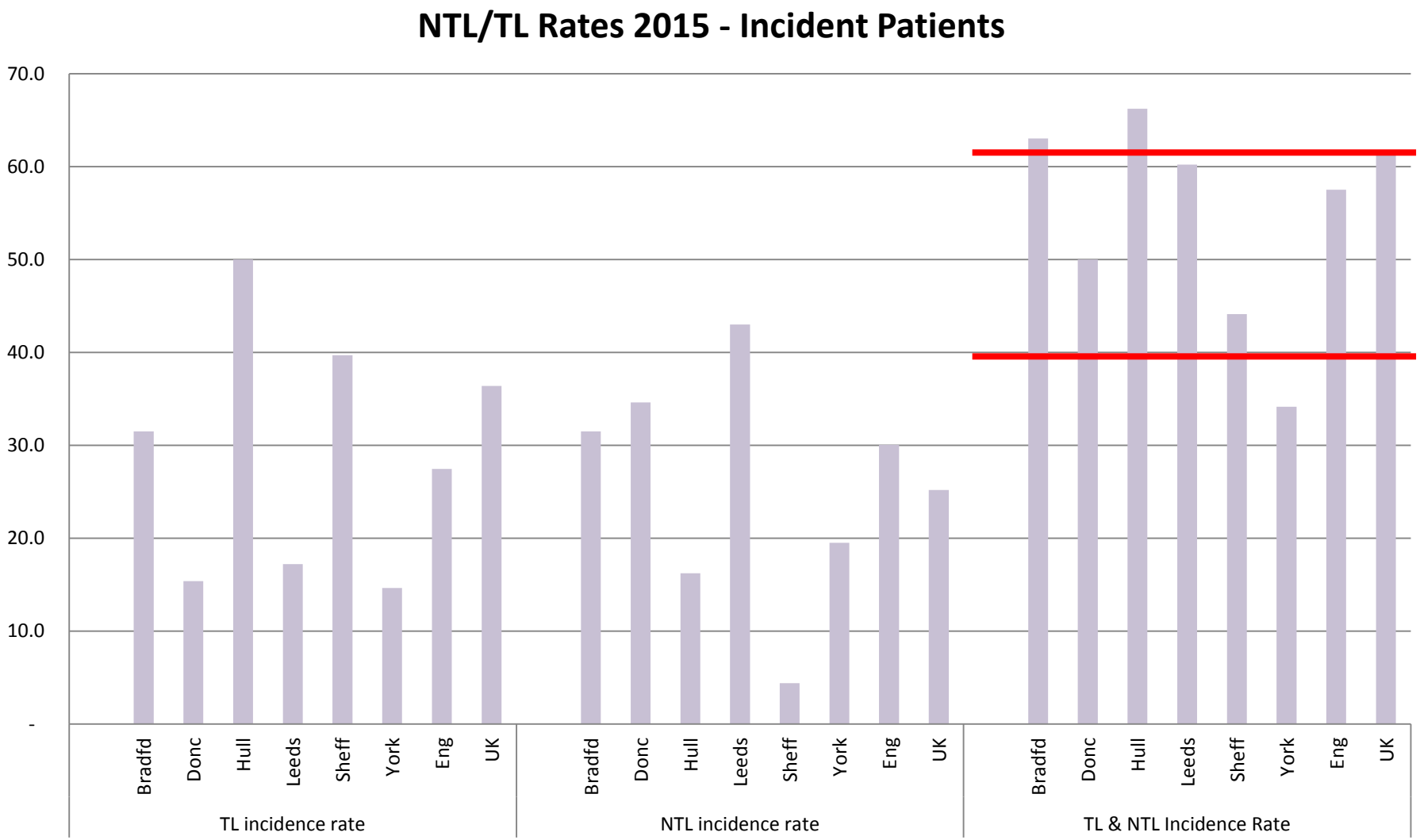
Nursing Care

Regional UK Renal Registry Data on Vascular Access

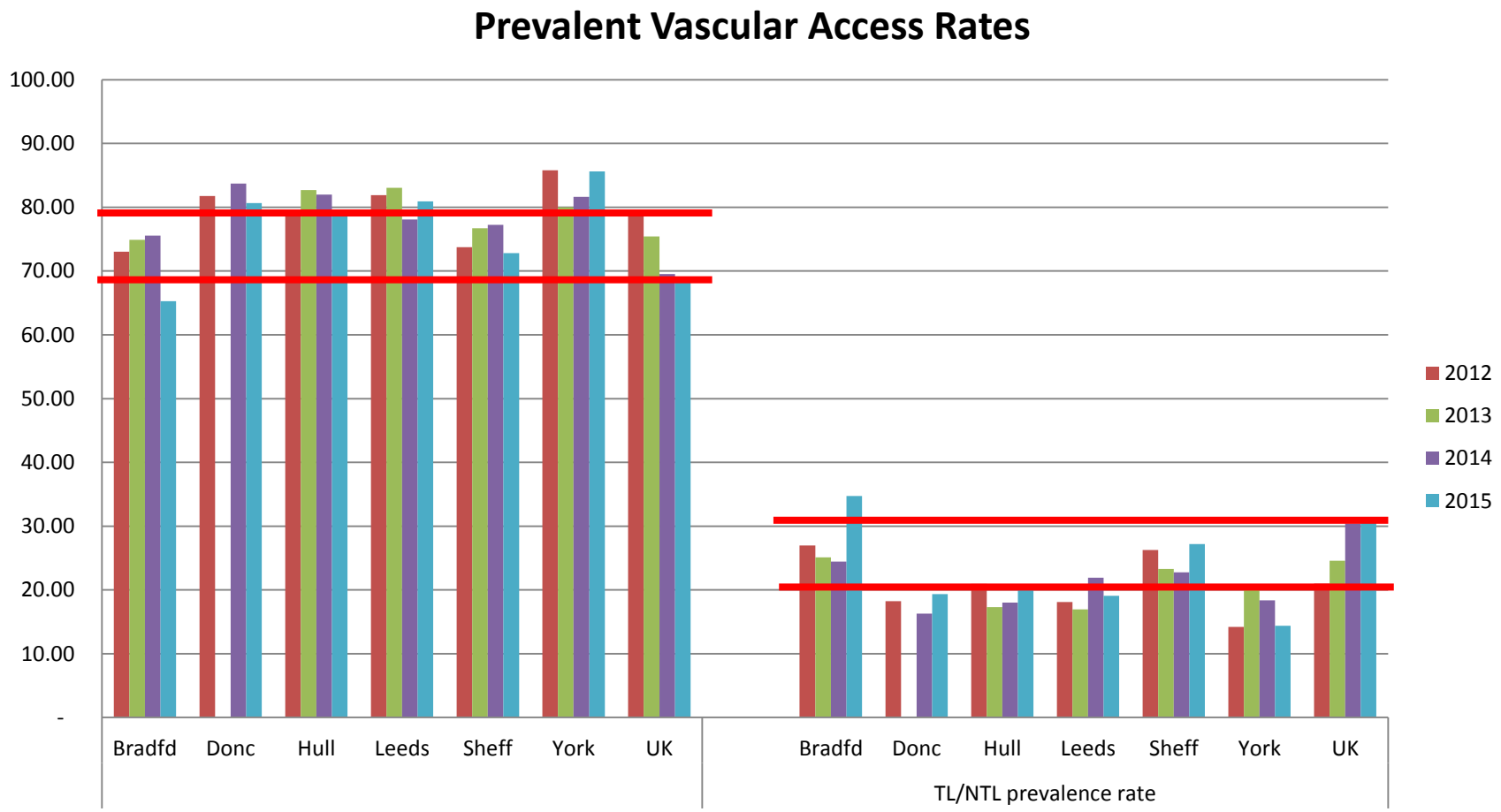
VA Incident Rates (1st. HD)



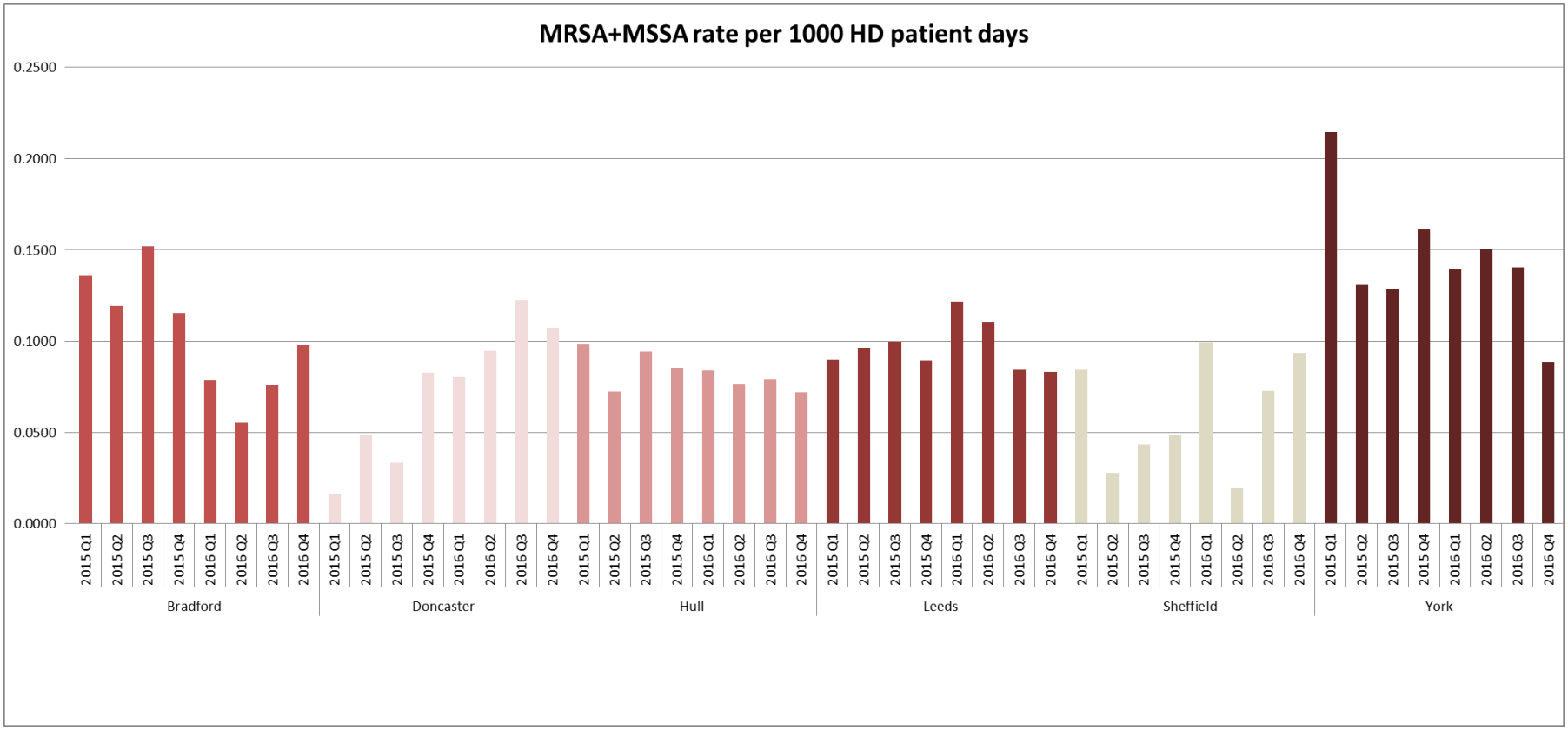
VA Incident Rates (1st. HD)



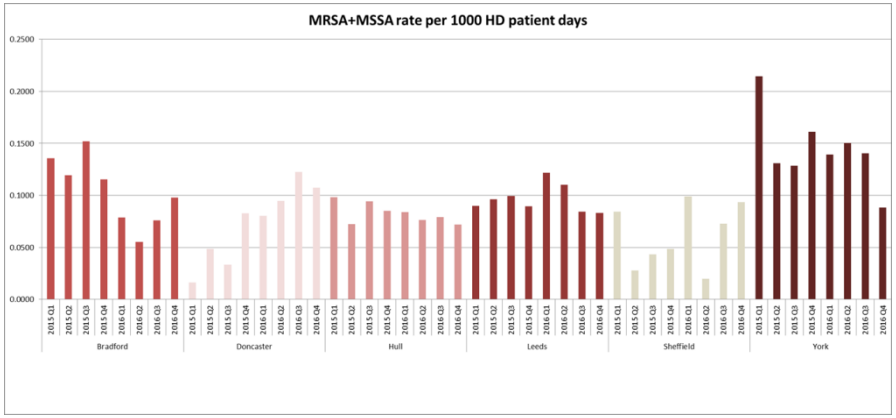
VA Prevalent Rates (All HD Pts)

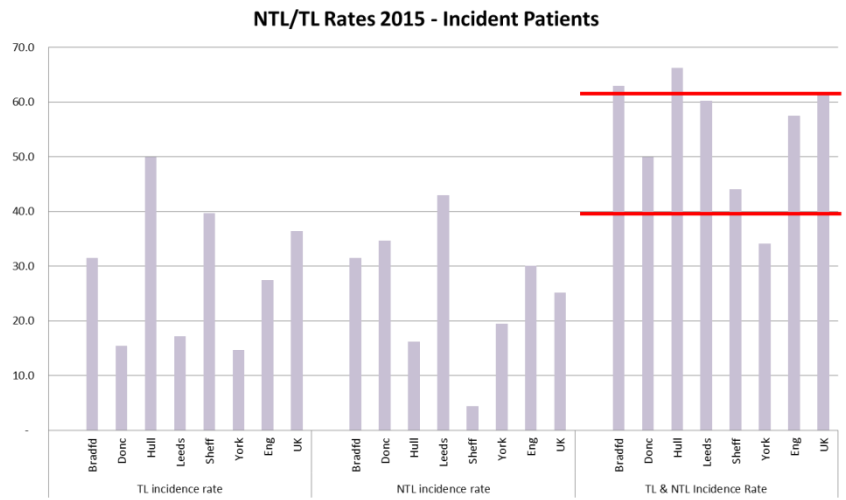


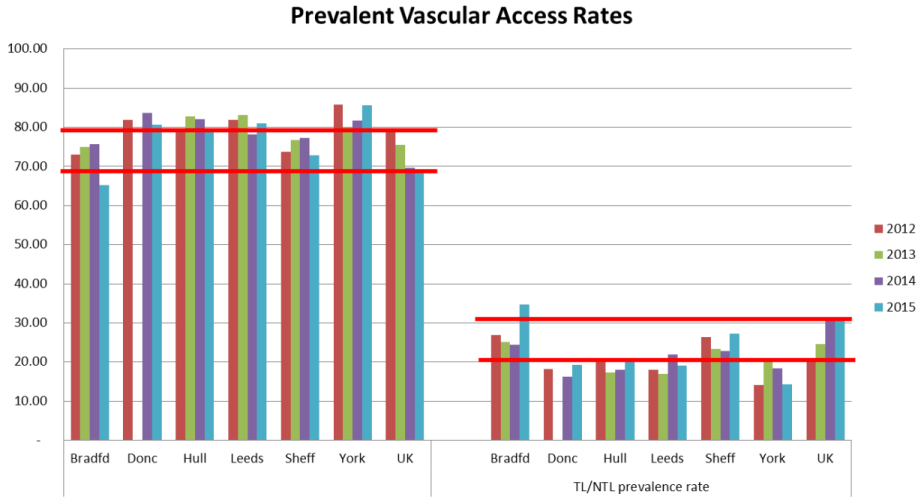
MRSA and MSSA Rates (VA & non VA)



Infection related to VA







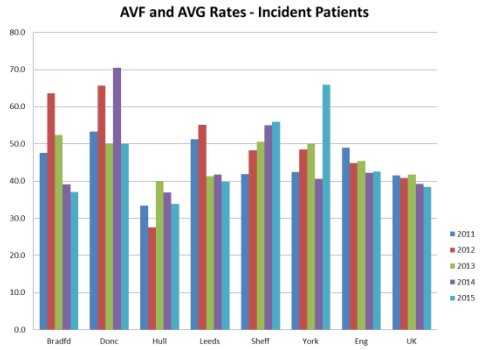
Timely VA Creation

Patient Info

Patient Empowerment
- Choice
- Care

High Primary Failure Rate of AVFs

VARIATION in OUTCOMES



Pathways

Cannulation

Multi-Specialty Working

Complications
- Longevity
- Infection
- USAGE!!

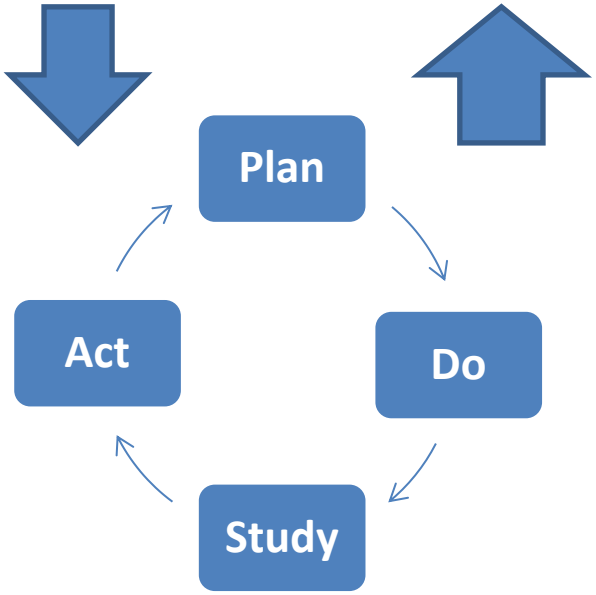
Nursing Care

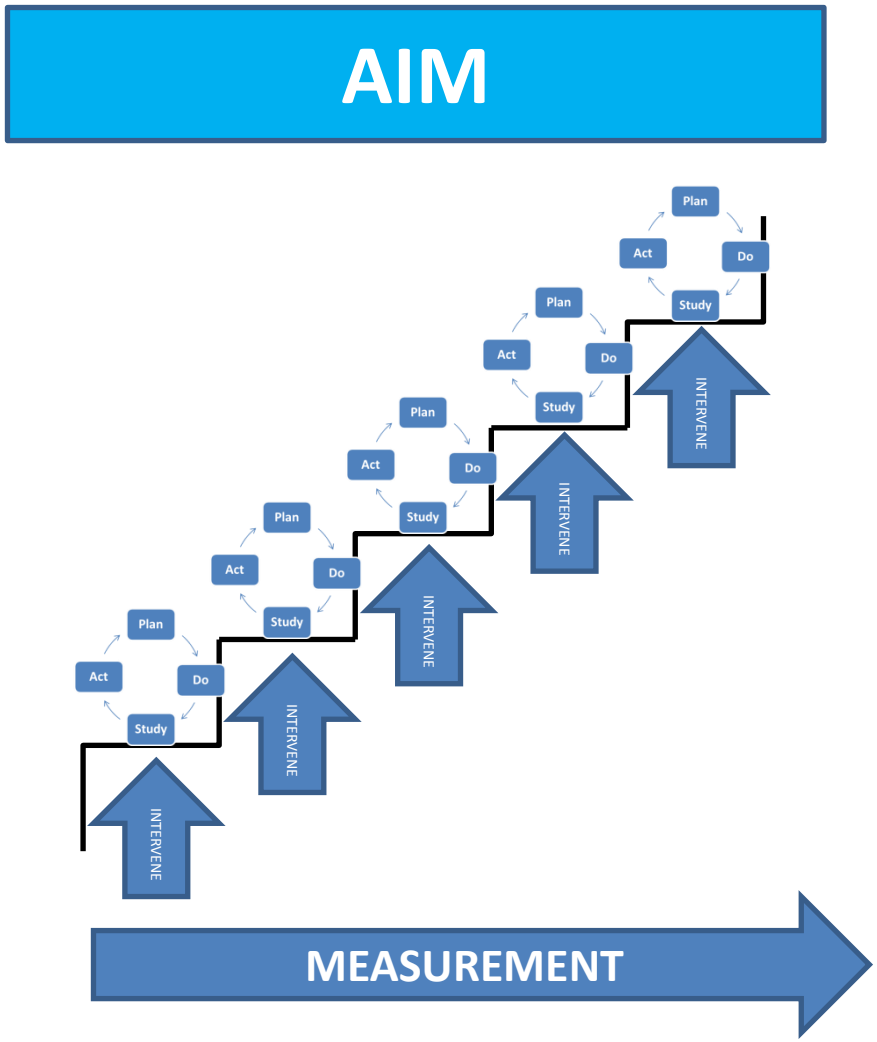
Inspiration for QI

Model for Improvement

3 Questions

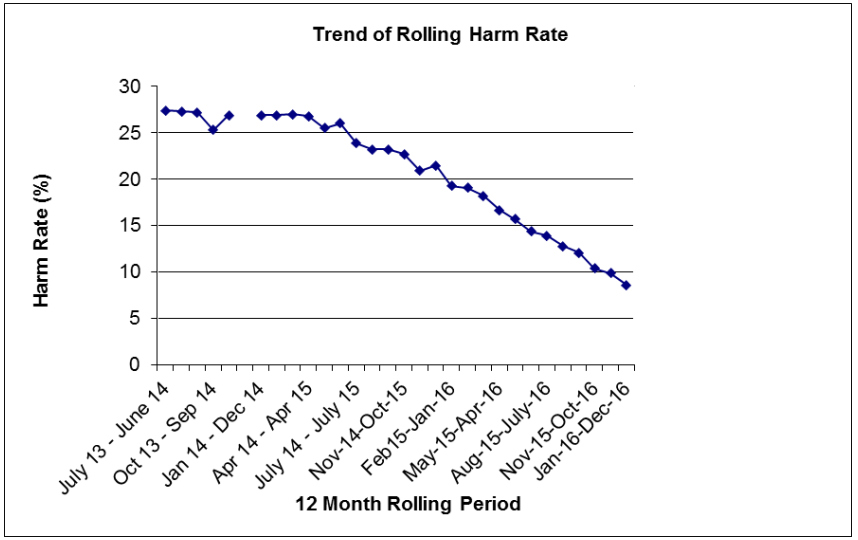
1) What are we trying to accomplish?
AIM
2) How will we know that a change is an improvement?
MEASUREMENT
3) What changes can we make that will result in improvement?
INTERVENTION





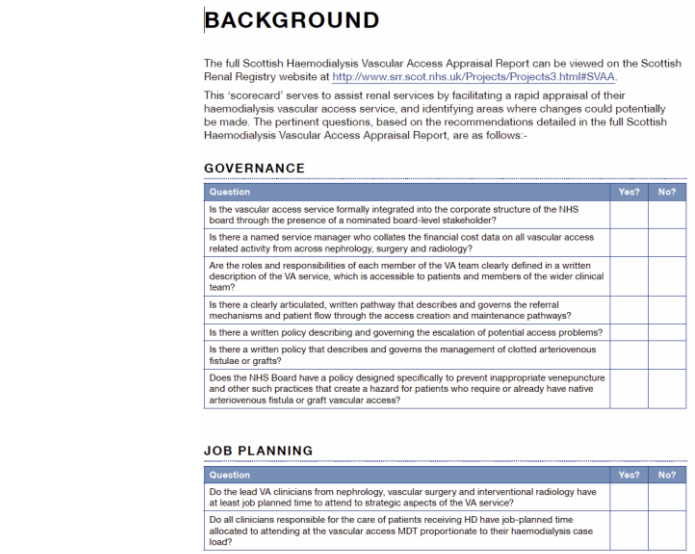
Identify where you have an issue – Outcome data

- Collect and analyse data locally
- Benchmark between units
  - UKRR Data
- Local QI team
- Identify where you need improvement
- Intervene
- Re-measure



Identify where you have an issue – Process Mapping

- Look at process of VA formation and use
- Identify where you have a weakness
- Scottish VA appraisal work
  - Scorecard
  - http://www.srr.scot.nhs.uk/Projects/Projects3.html#SVAA
- Look at all or look at part of the process



BACKGROUND

The full Scottish Haemodialysis Vascular Access Appraisal Report can be viewed on the Scottish Renal Registry website at http://www.srr.scot.nhs.uk/Projects/Projects3.html#SVAA.

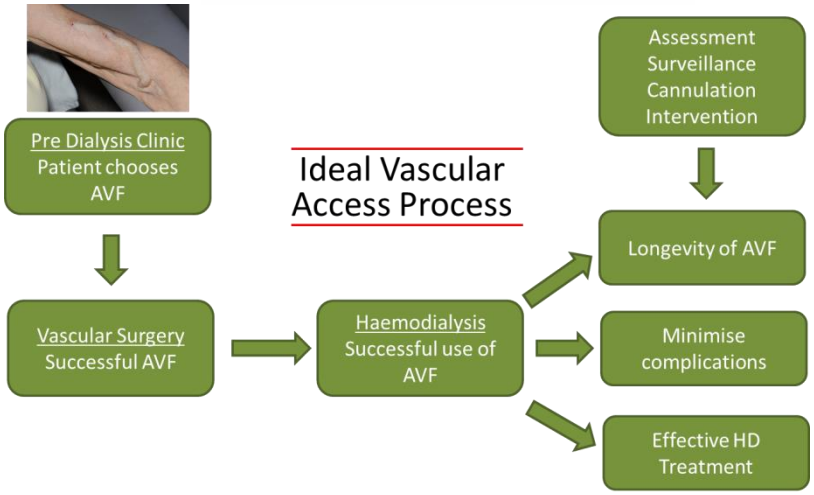
This 'scorecard' serves to assist renal services by facilitating a rapid appraisal of their haemodialysis vascular access service, and identifying areas where changes could potentially be made. The pertinent questions, based on the recommendations detailed in the full Scottish Haemodialysis Vascular Access Appraisal Report, are as follows:-

GOVERNANCE

Question	Yes?	No?
Is the vascular access service formally integrated into the corporate structure of the NHS board through the presence of a nominated board-level stakeholder?		
Is there a named service manager who collates the financial cost data on all vascular access related activity from across nephrology, surgery and radiology?		
Are the roles and responsibilities of each member of the VA team clearly defined in a written description of the VA service, which is accessible to patients and members of the wider clinical team?		
Is there a clearly articulated, written pathway that describes and governs the referral mechanisms and patient flow through the access creation and maintenance pathways?		
Is there a written policy describing and governing the escalation of potential access problems?		
Is there a written policy that describes and governs the management of clotted arteriovenous fistulae or grafts?		
Does the NHS Board have a policy designed specifically to prevent inappropriate venepuncture and other such practices that create a hazard for patients who require or already have native arteriovenous fistula or graft vascular access?		

JOB PLANNING

Question	Yes?	No?
Do the lead VA clinicians from nephrology, vascular surgery and interventional radiology have at least job planned time to attend to strategic aspects of the VA service?		
Do all clinicians responsible for the care of patients receiving HD have job-planned time allocated to attending at the vascular access MDT proportionate to their haemodialysis case load?		



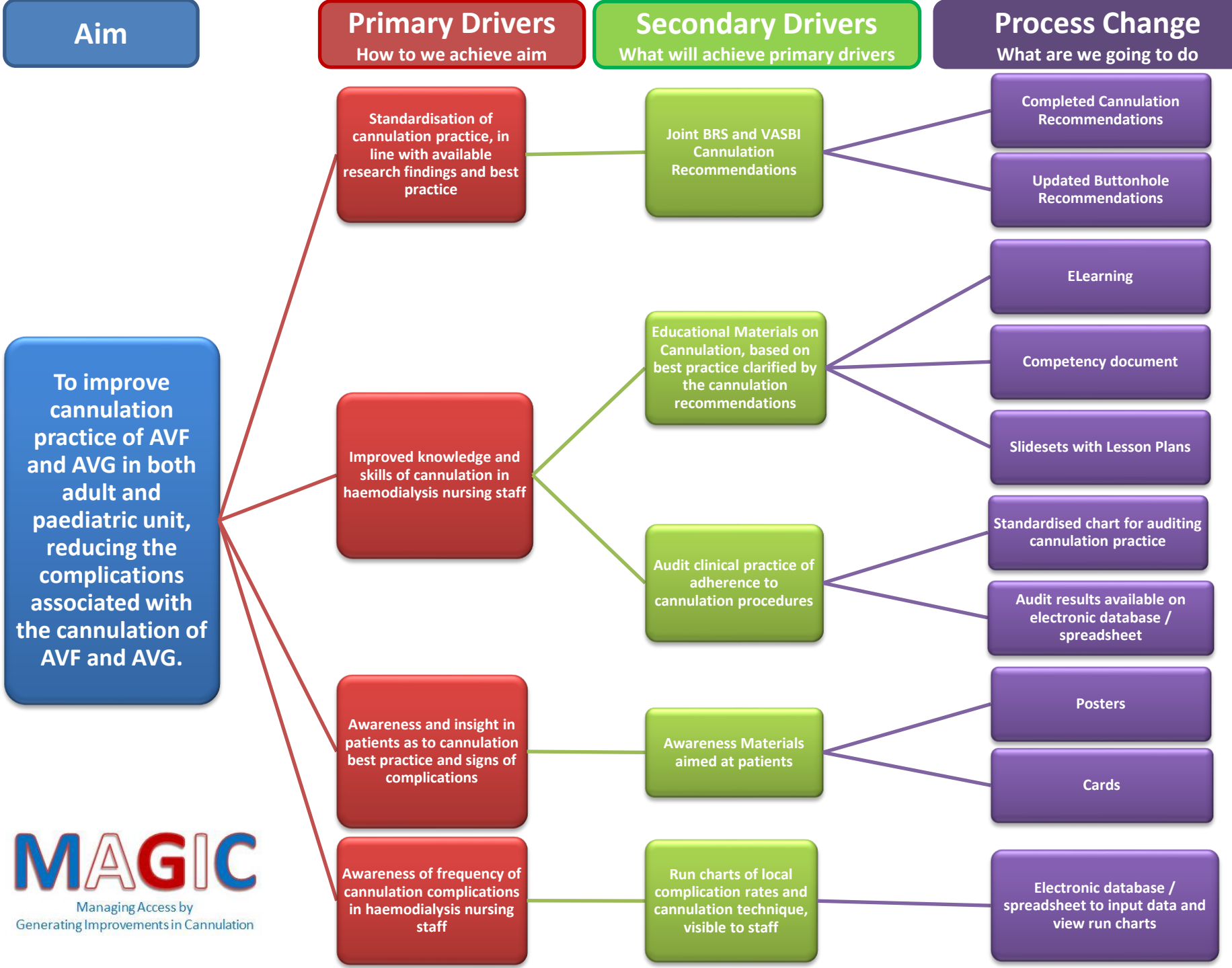
QI Tools

- QI Improvement Tools
- E.g. Driver Diagrams

- Focusses what you are aiming for
- Identify interventions

- Makes team cohesive
- Clear vision

- SMART objectives
- Cause and Effect / Fish Bone Diagram
- Brainstorming tools


Aim
Primary Drivers
How to we achieve aim
Secondary Drivers
What will achieve primary drivers
Process Change
What are we going to do
To improve cannulation practice of AVF and AVG in both adult and paediatric unit, reducing the complications associated with the cannulation of AVF and AVG.
Standardisation of cannulation practice, in line with available research findings and best practice
Improved knowledge and skills of cannulation in haemodialysis nursing staff
Awareness and insight in patients as to cannulation best practice and signs of complications
Awareness of frequency of cannulation complications in haemodialysis nursing staff
Joint BRS and VASBI Cannulation Recommendations
Educational Materials on Cannulation, based on best practice clarified by the cannulation recommendations
Audit clinical practice of adherence to cannulation procedures
Awareness Materials aimed at patients
Run charts of local complication rates and cannulation technique, visible to staff
Completed Cannulation Recommendations
Updated Buttonhole Recommendations
ELearning
Competency document
Slidesets with Lesson Plans
Standardised chart for auditing cannulation practice
Audit results available on electronic database / spreadsheet
Posters
Cards
Electronic database / spreadsheet to input data and view run charts
MAGIC
Managing Access by Generating Improvements in Cannulation

Vascular Access Care Interventions

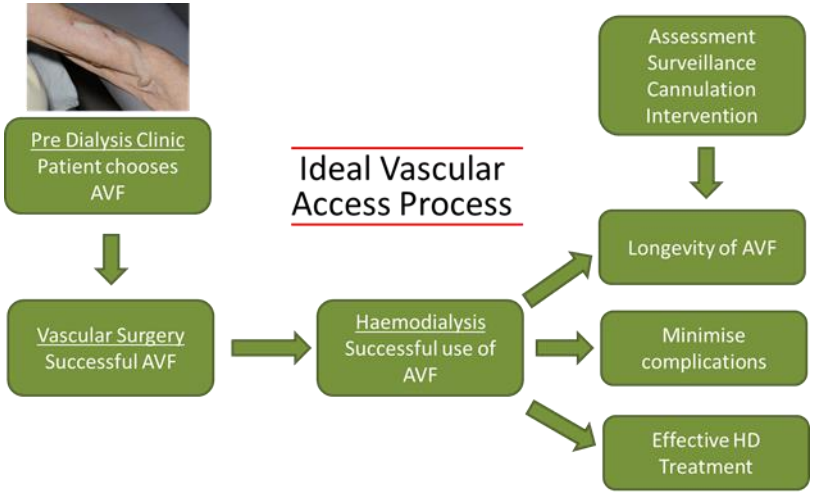
- Assessment
- Surveillance
- Cannulation
- Complications
  - Detection
  - Prevention
  - Management
- Medical Interventions

- Where do you want to improve?

- Identify your problem
  - Data / process mapping / QI tools
- Create and evaluate specific intervention (s)
  - One at a time
- Pre – post test measure / PDSA cycle

Small Interventions

- Awareness materials
- Patient information
- Improving flow through the system
  - Processes
- Improving nursing care
  - Staff knowledge
  - Procedures
    - Content
    - Adherence
- Educational materials
- Reducing complications
  - RCT analysis
- ……



National Resources Available

- Save Your Vein Campaign
- Scottish Vascular Access Appraisal
- Recommendations
  - RA
  - EDTNA
  - BRS
    - Cannulation
    - Life-Threatening Haemorrhage
    - Definitions of Cannulation Techniques
    - Cannulation Recommendations and Tools
- MAGIC

BRS British Renal Society Multi-professional working

BRS VASCULAR ACCESS Special Interest Group

VASBI

MAGIC
Managing Access by Generating Improvement in Cannulation

- Joint BRS and VASBI project supported by KQuIP

- Based Cannulation Recommendations
  - Standardise practice
  - Support units implementing

- Education Materials
  - ELearning, Competency Document, Slidesets
  - Cannulators
- Awareness materials
  - Patients
- Measuring VA outcomes

- Units to pilot the package

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Managing Access by
Generating Improvements in Cannulation

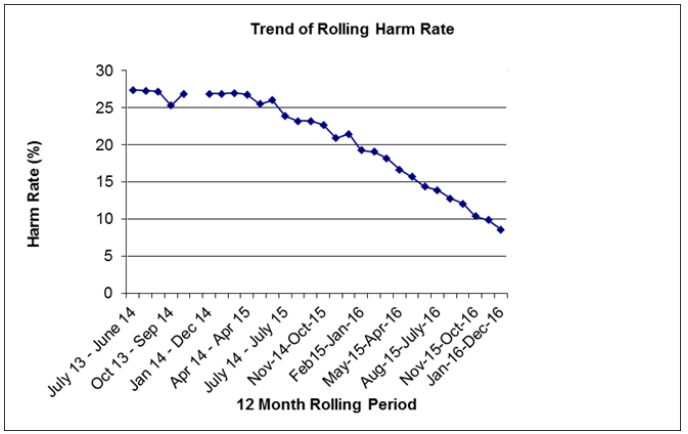
THINK KIDNEYS KQuIP BRS VASCULAR ACCESS Special Interest Group BRS VASBI

@HaemodialysisVA

Measuring Success

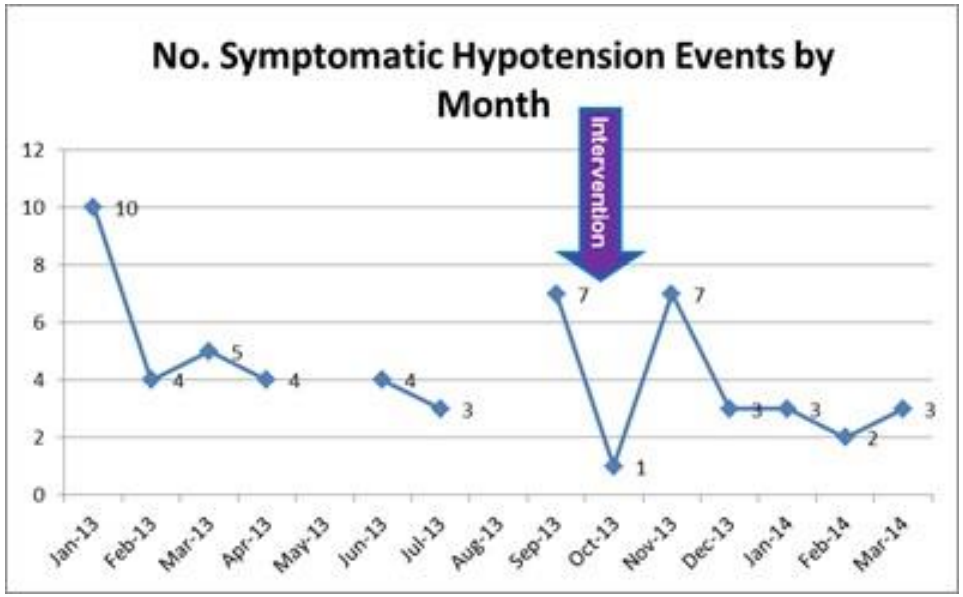
- Outcome
  - Clinical outcomes
  - What effect has it had on the patient's clinical status?
- Process
  - What effect has it had on working procedures?
- Balancing
  - Are there any negative effects?

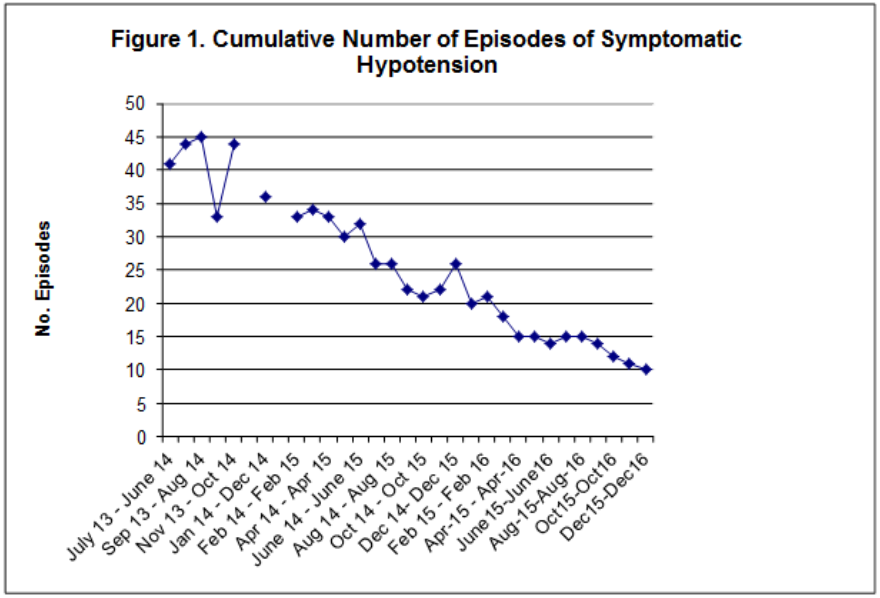
- Run charts
  - Average line



- Statistical process control charts
  - Run charts with limits
- Feed results into your team

Haemodialysis Trigger Tool





https://www.thinkkidneys.nhs.uk/kquip/hub/development-haemodialysis-trigger-tool-patient-safety-index-monitor-harm-events-haemodialysis-treatments/

Fielding C. Rhodes C. Chesterton L. Fluck R.J., Lambe G., Inacay G. and Taal M.W. (2016) 'Development of a trigger tool to detect harm during haemodialysis' *Journal of Kidney Care* 1(2) 72-7

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