

# Kidney Quality Improvement Partnership (KQuIP) #KQuIPYH

MAGIC next steps

Katie Fielding  
Project Lead



**KQuIP**

# Managing Access by Generating Improvements in Cannulation

Katie Fielding,  
MAGIC Lead

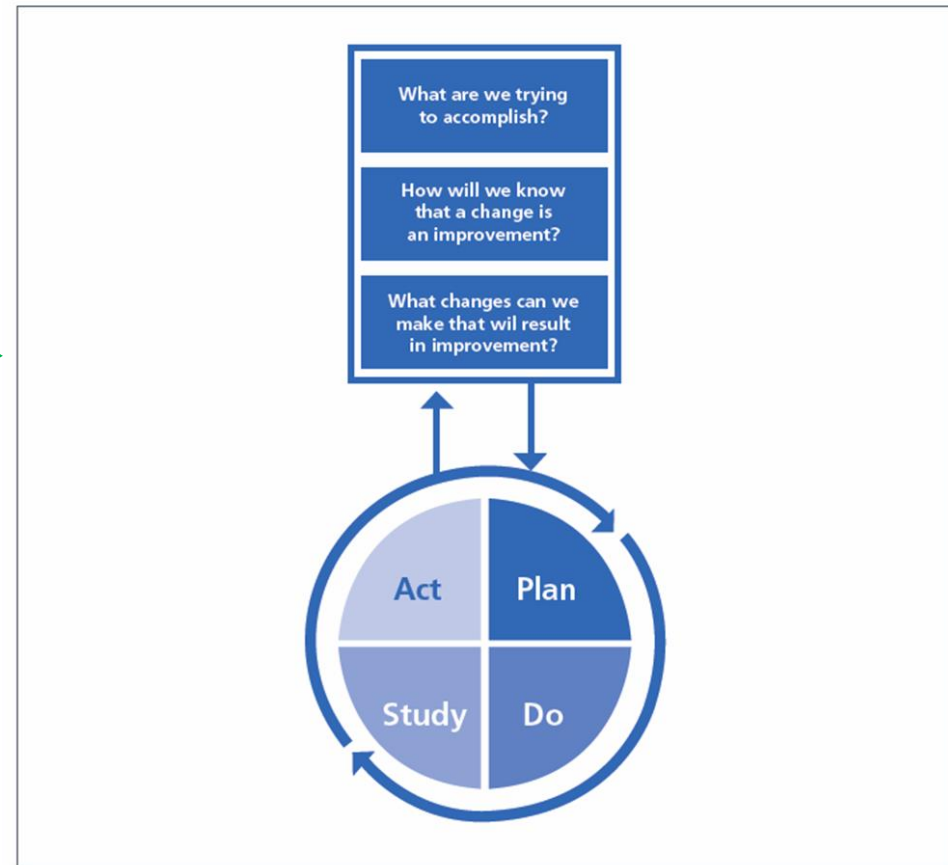
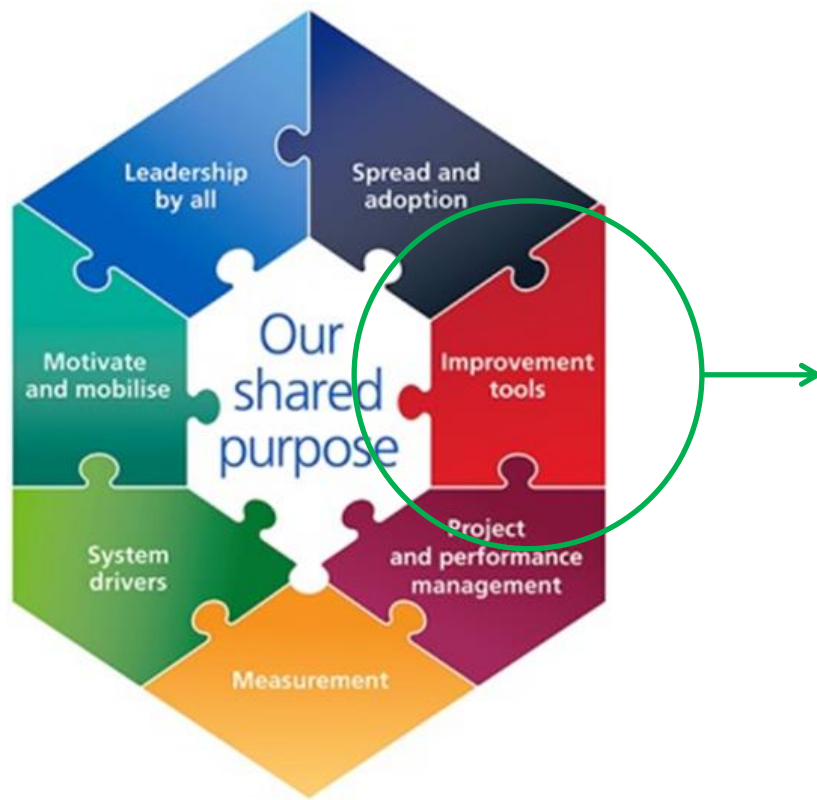
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# Implementing MAGIC

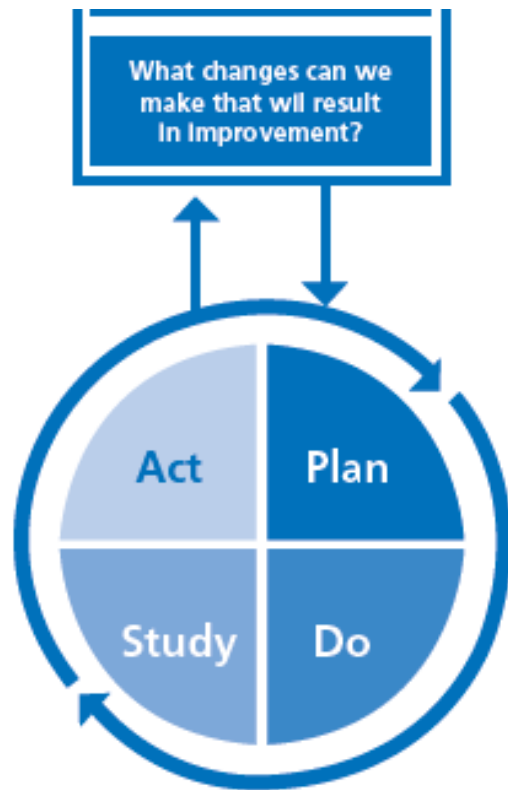




NHS Model for Improvement

# IMPROVEMENT TOOLS

# What are we going to change?



Staff knowledge about good cannulation practice

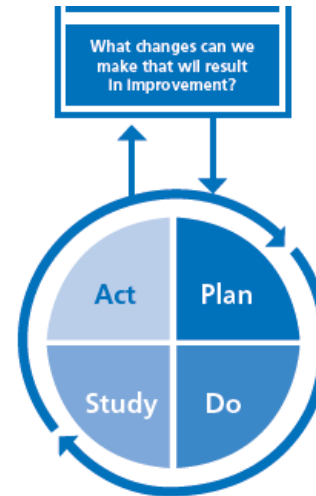
- Knowledge
  - Content of recommendations
- Theory-practice divide
  - How to apply to practice
- Reflection
  - Awareness of what they are / are not doing

Patient awareness of good cannulation practice

- Allow good practice to happen
- Drive the right practice
- Make informed choices

# PDSA Cycle

Evaluates the change  
Respond to success and challenges  
Intrinsically linked with question 3



The four stages of the PDSA cycle are:

**Plan** – the change to be tested or implemented

**Do** – carry out the test or change

**Study** – based on the measurable outcomes agreed before starting out, collect data before and after the change and reflect on the impact of the change and what was learned

**Act** – plan the next change cycle or full implementation.

# Application to MAGIC

What are we going to change – Staff Education

Plan – Today

Do – Take and implement the plan in your units

Study – how have you baseline measures changed

Act – Patient Awareness on 14/08/19

# Summary of MAGIC

What are we trying to accomplish – Aims and objectives

How we will know we've created an improvement

What are we going to change – Staff Education  
(then region designed phase)



**Driver Diagrams**  
**Process Maps**

Plan – Today

Do – Take and implement the plan in your units

Study – how have you baseline measures changed

Act – Patient Awareness PDSA starts on 14/08/19

....

Act – Region designed phase – 12/12/19



## Aim

## Primary Drivers

How to achieve the aim

## Secondary Drivers

What will achieve primary drivers

## Process Change

What are we going to do

To promote good cannulation practice and improve the patient experience of cannulation

Standardise cannulation practice

Joint BRS and VASBI Cannulation Recommendations

Release on websites & twitter

Update Buttonhole Recommendations

Short, simple summary of recommendations

Leadership of good cannulation practice locally

Local HD nurse champions for cannulation

Identify HD nurse champions

Vascular access lead support

Support champions through 3 monthly meetings

Improved nursing knowledge and skills of cannulation

Educational materials on cannulation

ELearning

Competency document

Slidesets with Lesson Plans

Patient awareness of good cannulation practice

Awareness materials aimed at patients

Posters

Cards

Staff awareness of frequency of cannulation complications

Run charts and data visible to staff

Electronic database

1

2

4

5

3

# Staff Education

# Why Staff Education (for Nurses)?

Area puncture is predominant cannulation technique

CKD PREM highlights patients' needling experience as an area for improvement

Consensus expert opinion

• BRS VA

• VASBI

Nursing staff practice is predominant driver of cannulation practice

• Nurses teach nurses

• Nurses teach patients

Education improves cannulation practice



their fantastic work focused on  
Brilliant work Beth! @NUHNursing



The Renal Team@nuh and team kingsmill dialysis

1 5 14

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## What can we do....

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... to improve knowledge, but also apply to practice and create awareness of practice?

BRS & VASBI recommendations

- Define best practice

MAGIC ELearning

- Feasible and effective education

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## BRS & VASBI Recommendations

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### Definition of Best Practice

# BRS VA and VASBI Cannulation Recommendations

Released 25/09/18

Available on BRS website (News and BRS VA section)

Incorporates:

- AV grafts and fistulae
- Adults and paediatrics
- Buttonhole, rope ladder and area puncture cannulation
- Existing BH recommendations

## BRS / VASBI Needling Recommendations

By Gemma Bell

© September 27, 2018

On behalf of the BRS Vascular Access Special Interest Group and Vascular Access Society of Britain & Ireland (VASBI) we are pleased to announce the launch of the Clinical Practice Recommendations for Needling of Arterio venous Fistulae and Grafts for Haemodialysis.

The authors are to be congratulated on creating an in depth guide which includes theory, practical skills and tools that can be used in the workplace to improve clinical practice and ultimately patient experience.

This initiative demonstrates the value of collaborative working across multi-professional groups to share their expert knowledge.

The recommendations can be accessed and downloaded below:

[Clinical Practice Recommendations for Needling of Arteriovenous Fistulae and Grafts for Haemodialysis](#)

[AVF Cannulation Decision Making Model](#)

[Area Puncture Action Chart](#)

[Pre Needling Assessment](#)

<https://britishrenal.org/news/brs-vasbi-needling-recommendations/>

# Sections of the Recommendations

A) Principles of a Good Needling Technique

B) Technical Principles to aid Decision Making Prior to Needle Insertion

C) Procedural Principles for Good Needling Technique

Define Good Cannulation (3)

D) Assessment of AV Access Prior to Needling

E) Definitions of Needling Techniques

Assessment Pre-Cannulation (1)

F) Choosing the Needling Technique and Planning Needling

G) Rope Ladder Needling Technique

H) Buttonhole Needling Technique

I) Area Puncture Needling Technique

Needling Techniques (5)

J) Needling of New AV Access

K) Use of Nurse-Led Ultrasound to Assess

Needling new Access & US (2)

L) Managing Anxiety during Needling

Managing Anxiety (1)

M) Involving Patients in Care of their Vascular Access

Involving Patients (2)

N) Teaching Patient how to Self-Needle

O) Staff Training to Perform Needling

Staff Training (1)

# Tools within the Recommendations

Pre-Cannulation Assessment

Cannulation decision making model

Avoiding area puncture



[illegible]

# Section F: Choosing your Cannulation Techniques

With patients

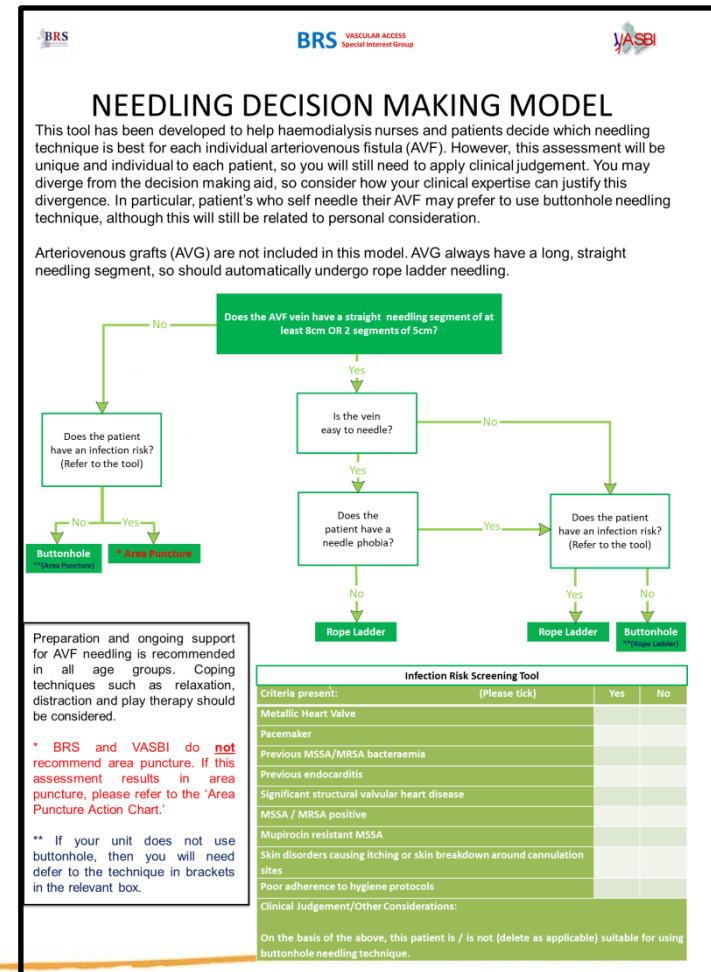
Length of cannulation segment

Infection risk

Screening tool (Swain et al, 2017)

Needle phobia

Ease of cannulation



# Section I: How to Avoid Area Puncture

Avoid if possible

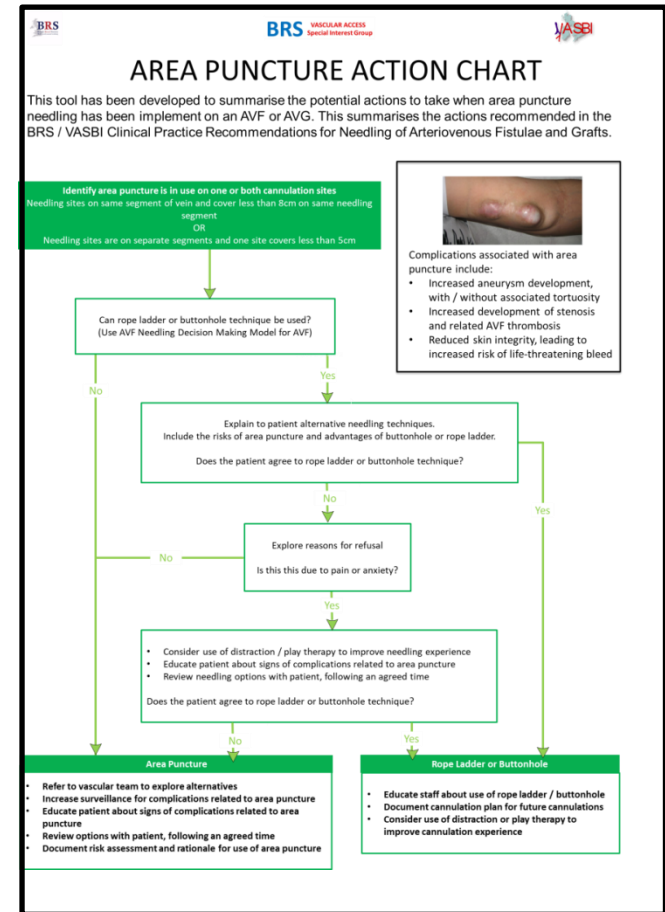
May be a necessary evil

Educate patients

Educate staff

Needling plan

If necessary, monitor for complications



# MAGIC ELearning

# MAGIC ELearning

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Based on the Needling Recommendations

Application of the recommendations

Content created by BRS VA and VASBI nurses group

Learning points promote reflection

- Further reading

Includes videos and links to external resources

Renal Association platform

- Log ins

- Saves progress

- Certificate of completion

## 5 sections

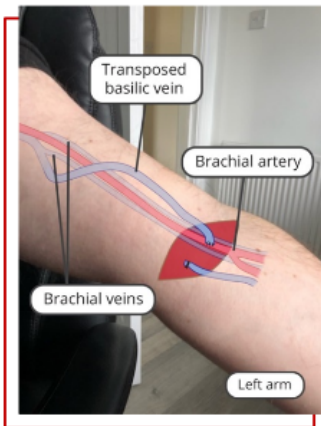
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- 1) Vascular Access for Haemodialysis
- 2) Assessment of Matured AV Access – Look, Listen, Feel and Drain
- 3) Cannulation of AV Access
- 4) Complications associated with AV Access
- 5) Quiz
  - Before and after

# Vascular Access for Haemodialysis

## Brachio-Basilic Fistula

### Section 1: Vascular Access for Haemodialysis



The brachio-basilic fistula is normally explored if the brachio-basilic fistula is not possible or fails.

This involves joining the brachial artery to the basilic vein at the elbow.

The basilic vein is large vein that often provides a good vessel for a fistula. However the basilic vein often runs deeply on the inside (proximal side) of the arm.

Sometimes the basilic vein will be raised nearer to the surface (superficialisation) to allow needles to be inserted for haemodialysis. Sometimes without superficialisation the basilic vein is too deep to use for haemodialysis.



Resources

### Learning Point

#### Section 1: Vascular Access for Haemodialysis



The Renal Association Guidelines provide guidelines on vascular access management for haemodialysis for the UK. These can be accessed by following this link:

[View](#)

Please read these guidelines and then reflect on your practice by answering the following questions

# Assessment of Matured AV Access

## BRS / VASBI Pre-Needle Insertion SCORING TOOL

### Section 2: Assessment of Matured AV Access – Look, Feel, Listen and Drain

BRS and VASBI have created a scoring tool to allow healthcare workers to document their look, listen and feel assessment prior to needle insertions. (NB. This is only for arteriovenous access that is to have needles inserted for haemodialysis.)

Score and description	Score	Notes
<ul style="list-style-type: none"> <li>No visible signs of infection</li> <li>No swelling</li> <li>No tenderness</li> <li>No bruising</li> <li>No redness</li> <li>No pain</li> <li>No discharge</li> <li>No abnormal sounds</li> <li>No abnormal flow</li> </ul>	0	No action required Safe to access
<ul style="list-style-type: none"> <li>No visible signs of infection</li> <li>No swelling</li> <li>No tenderness</li> <li>No bruising</li> <li>No redness</li> <li>No pain</li> <li>No discharge</li> <li>No abnormal sounds</li> <li>No abnormal flow</li> </ul>	1	Monitor Look for changes and report to the vascular team
<ul style="list-style-type: none"> <li>No visible signs of infection</li> <li>No swelling</li> <li>No tenderness</li> <li>No bruising</li> <li>No redness</li> <li>No pain</li> <li>No discharge</li> <li>No abnormal sounds</li> <li>No abnormal flow</li> </ul>	2	Refer to Vascular Access Team Refer to Vascular Access Team
<ul style="list-style-type: none"> <li>No visible signs of infection</li> <li>No swelling</li> <li>No tenderness</li> <li>No bruising</li> <li>No redness</li> <li>No pain</li> <li>No discharge</li> <li>No abnormal sounds</li> <li>No abnormal flow</li> </ul>	3	Stop dialysis Refer to Vascular Access Team Refer to Vascular Access Team



Resources

## Look, Listen, Feel Assessment

### Section 2: Assessment of Matured AV Access – Look, Feel, Listen and Drain

This video shows a nurse performing a look, listen, feel assessment prior to inserting the needles into the vascular access.



Please click the video to start





## Relaxation Techniques

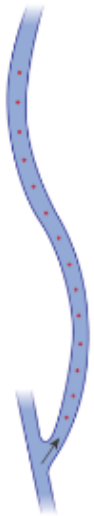
These are helpful for children, young people or adults who are particularly worried or anxious about having their AV fistula accessed. These should be started before the procedure begins to allow the patient to engage and begin to relax.



## The three cannulation methods

### Section 3: Cannulation of AV Access

To learn more about the three cannulation methods, please click on the im



Rope ladder



Area puncture



Buttonhole

## Cannulation

### Rope Ladder Cannulation

1

2

3

4

5

6

Non-needling hand stabilises the vessel



# Complications

## Importance of Vascular Access

### Section 4: Complications associated with AV Access

Some of the complications associated with AV access for use for haemodialysis include:

Cannulation Problems

Stenosis

Thrombosis

Arteriovenous

Management of LTB

Infection

Life  
Threatening  
Bleed

Steal  
Syndrome



Once help from the emergency services has been initiated, patients should apply direct pressure to the bleed.



# Quiz

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Bank of 53 MCQ questions

Asked to complete 15 questions randomly

80% pass rate to complete

Certificate of completion

● Include text from learning outcomes

# Measuring Impact

## Outcomes

Make a note of the date you started

Do these change?

See trend change in run chart

Statistical process control

● Life QI

## Process

How many completed ELearning

Evaluation of ELearning

Pre and post test scores

Use of tools

Evaluation of tools

## Balancing

What has got worse?

● Missed cannulation?

● Patient experience?

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## Groupwork

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Next Steps

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What will you need to do to implement the ELearning package with staff?

Do you want to add anything else?

● If so, what?

● Intervention?

● Measures?

How will you co-ordinate with the region?

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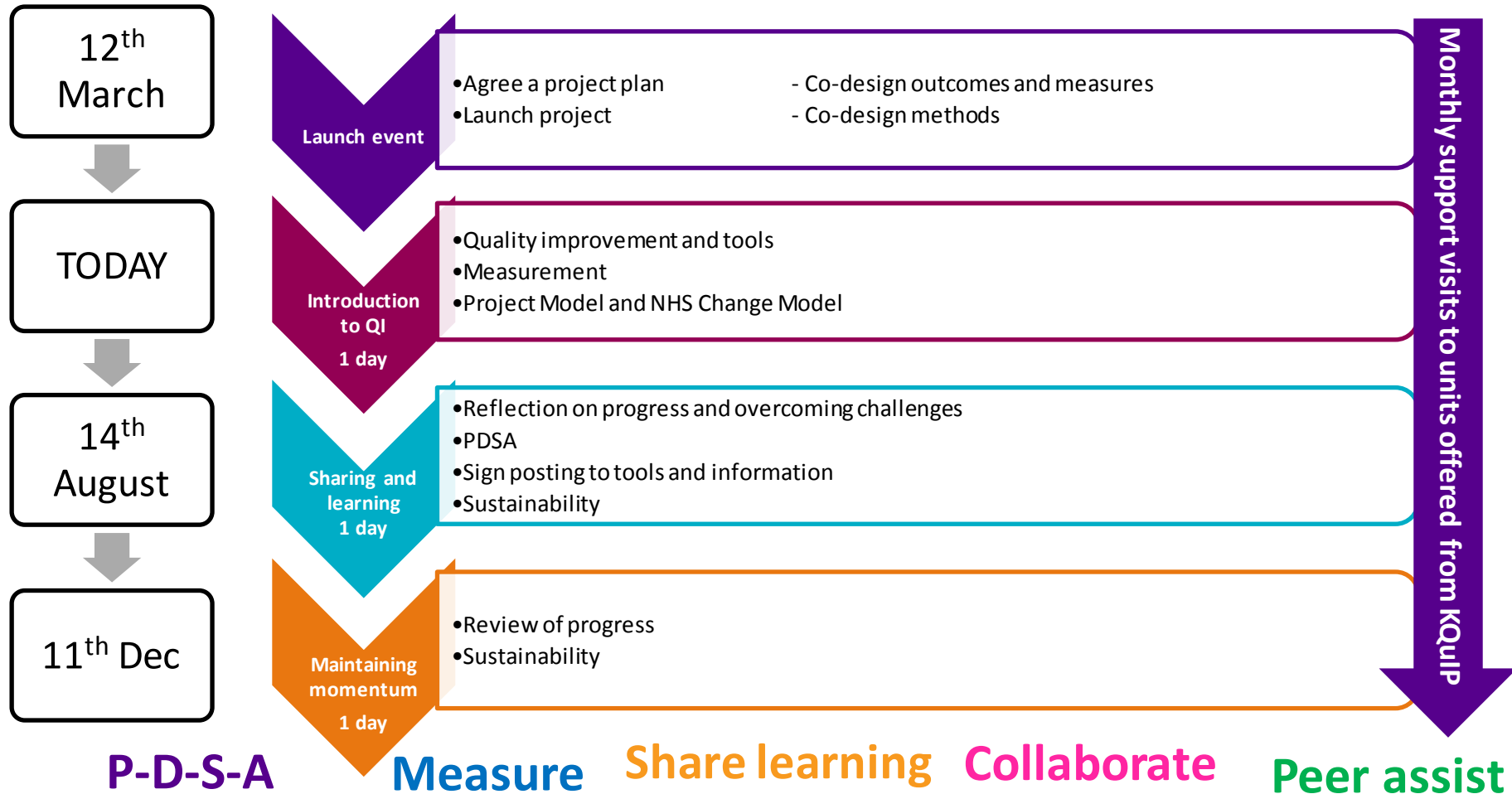
KQuIP Offer

Leeanne Lockley



**KQuIP**

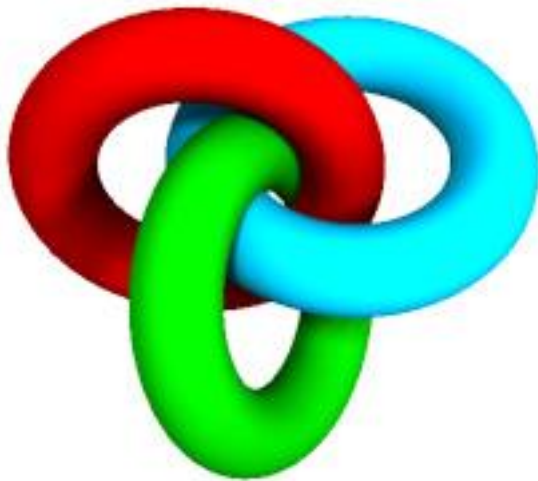
# Project phase







# My role...



- Support to connect teams – collaboration
- Assimilate and communicate learning between KQUIP training days – action learning sets, webinars
- Website resources and communications
- Support for organising and providing training /meeting venues / sponsorship

# KQuIP...

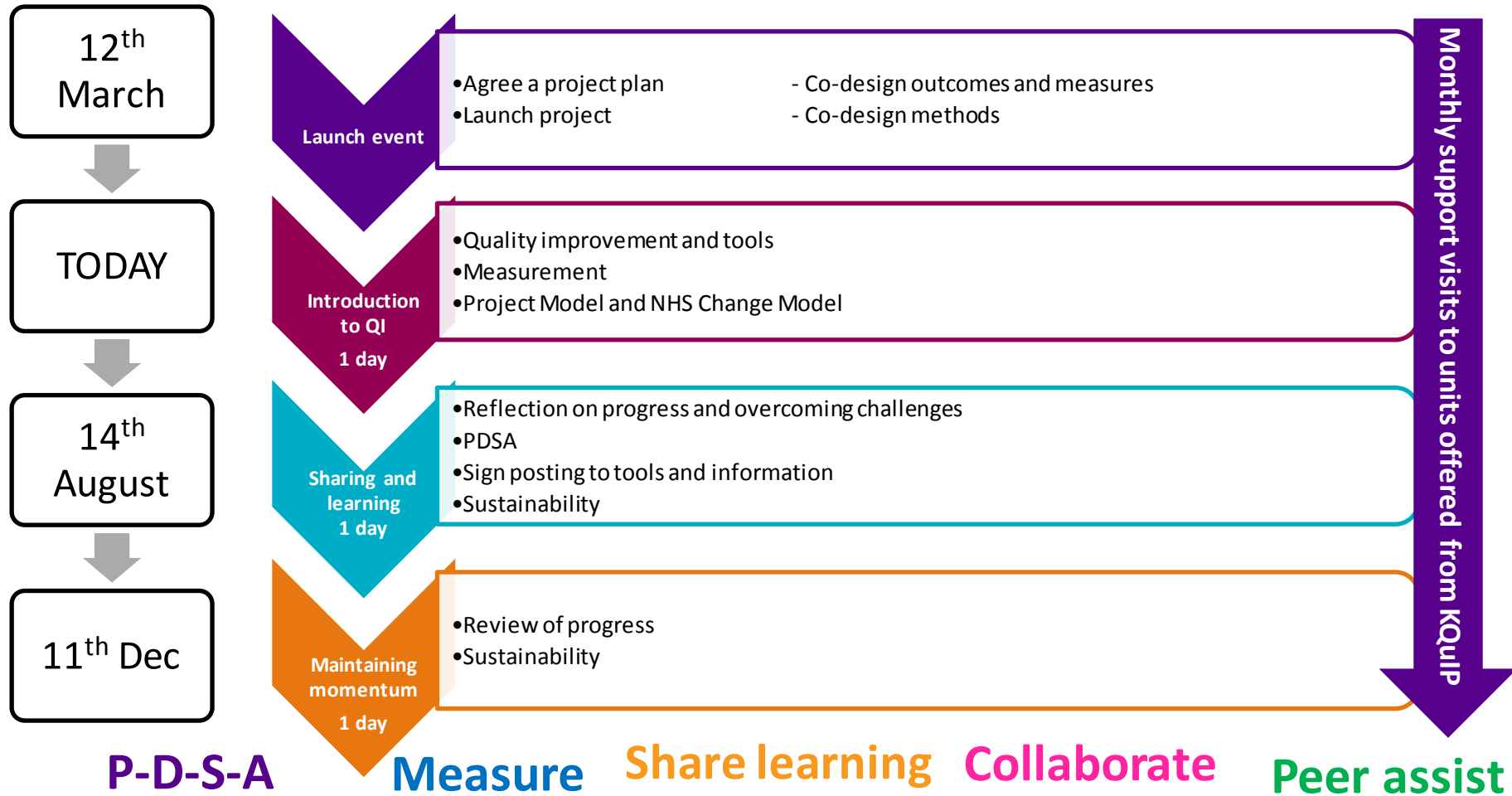
## IS...

- Facilitative
- Enabling
- Local ownership - teams are responsible for the decisions, results and actions
- Keeping the energy, momentum, drive
- Tailored support

## IS NOT...

- The subject matter expert or owner of the project
- Directive
- Inflexible or rigid

# Project phase



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**Thank you and travel safe**



**KQuIP**