

SAM·QI for the Acute Medical Unit

Five Steps to Better Care

A quick guide to quality improvement in Acute Medicine

A concise introduction to SAM's practical five-step improvement journey: understand the problem, define the aim, choose changes, test and measure, then sustain and share what works.

Model for Improvement

PDSA

MDT

Data over time

Use this guide when you need to...

- understand the SAM approach quickly
- introduce QI at induction or teaching
- frame a project before opening the full workbook
- explain the five steps to your MDT

5

steps

10

minutes

1

shared language

MDT

by design

START HERE

The five-step AMU Improvement Journey

The quick guide introduces the journey. The comprehensive workbook teaches the tools in depth.

1 UNDERSTAND

2 DEFINE & AIM

3 CHOOSE CHANGES

4 TEST & MEASURE

5 SUSTAIN & SHARE

Core methodology

The guide uses the **Model for Improvement**: what are we trying to accomplish, how will we know a change is an improvement, and what changes can we make? PDSA cycles turn those questions into structured tests.

The SAM translation

The five-step journey is not a new methodology. It is a practical way of applying established improvement science in acute medical care. **The steps are iterative, not a waterfall.**

SAM QI WORKBOOK | A practical guide to improving care on the AMU

FOUNDATIONS 5

The AMU Improvement Journey in five steps

Applying improvement science to acute medical care

This five-step journey translates established improvement methodology into a practical, achievable pathway for acute medical teams. We primarily use the Model for Improvement as our core methodology, supported by tools from improvement science, human factors, implementation approaches and statistical process control. You do not need every tool for every project – choose the right tools at the right time.



Remember

- Start small. Test safely.
- Measure over time.
- Learn honestly.
- Involve your MDT, patients and carers.
- Make the right thing easier to do.

OUR CORE METHODOLOGY

Model for Improvement

Three questions to guide improvement, tested through PDSA cycles



What are we trying to accomplish?

Aim and outcomes



How will we know that a change is an improvement?

Measures and data



What changes can we make that will result in improvement?

Change ideas and testing



1 UNDERSTAND THE PROBLEM



What is really happening on the AMU?

Understand the current system, where the problem occurs, who is affected and what the impact is.

KEY TOOLS

- Process map
- Gemba walk
- Baseline data review
- 5 Whys
- Fishbone diagram
- Pareto chart
- Patient and staff feedback



OUTPUT
A shared understanding of the problem and its underlying causes.

2 DEFINE THE PROBLEM STATEMENT AND AIM



What exactly are we trying to improve?

Turn the problem into a clear, measurable aim with a defined scope and time frame.

KEY TOOLS

- Problem statement
- SMART aim
- Scope (inclusion/exclusion)
- Project charter / pitch
- Benefits statement
- Stakeholder identification



OUTPUT
A clear, measurable aim and a plan to test improvement.

3 CHOOSE CHANGE IDEAS



What changes are most likely to help?

Understand the system and prioritise change ideas that are feasible, acceptable and high impact.

KEY TOOLS

- Driver diagram
- Stakeholder map
- Impact / deliverability scoring
- RACI matrix
- Power-interest grid
- FMEA (risk assessment)
- Equality impact prompt
- Co-design with patients and staff



OUTPUT
A prioritised set of change ideas and a plan for how to test them.

4 TEST AND MEASURE IMPROVEMENT



Are the changes working?

Test changes on a small scale, measure their impact and learn what works, adapting as you go.

KEY TOOLS

- PDSA cycles
- Measurement plan
- Outcome, process and balancing measures
- Run chart / SPC chart
- Data collection plan
- Learning log
- Human factors review (what helps or hinders)



OUTPUT
Evidence of improvement, adaptation and learning from testing.

5 SUSTAIN, SPREAD AND SHARE



Will the improvement last and help others?

Make the change part of everyday work, monitor over time and share your learning.

KEY TOOLS

- Sustainability / control plan
- Standard work / SOP
- Re-audit and monitoring plan
- Implementation and culture tools
- SQUIRE write-up
- Abstract and poster
- QIP library submission
- Spread / adoption plan



OUTPUT
A durable improvement that is embedded in practice and shared to help others.

Other improvement approaches you may use



Examples of AMU QIPs

- Sepsis: antibiotics within 1 hour
- Time to senior review
- Frailty assessment and CFS documentation
- Medicines reconciliation within 24 hours

- SDEC referral and discharge pathway
- Discharge summary completion
- Delayed discharges
- Handover between ED, AMU and wards
- Board round actions and follow-up

★ **IMPORTANT:** Good improvement is about patients and people, not projects and paperwork. Use established methodology, choose the right tools, and involve your MDT, patients and carers.



Scan to view the full QI toolkit, templates and worked examples in this workbook.

The AMU Improvement Journey in five steps. Use this as the visual map for the quick guide and comprehensive workbook.

Curious, not blaming

Look at how the system makes the current outcome likely.

Measured, not anecdotal

Use data over time alongside patient and staff experience.

Test, do not launch

Start small, predict what will happen, learn and adapt.

STEP

1

UNDERSTAND

Understand the problem

What is really happening on the AMU?

Main purpose

Build a shared understanding of the current problem, its context and the factors that may be contributing to it.

Map work as it is actually done, not only how policy says it should happen. Use observation, data and lived experience to understand the system before choosing an intervention.

Output

A clear description of what is happening, to whom, where, when, how often and why it matters.

Frame the problem

Use 5W2H to ask what, why, where, when, who, how and how much/how often.

Observe the work

Use Gemba/observation to see waits, workarounds, hand-offs and hidden complexity.

Do not start with...

"We need a poster", "we need training" or "we need a checklist". Those are possible solutions, not the problem.

Map the process

Show steps, decisions, queues, loops, duplication and rework from the patient's perspective.

Explore causes

Use fishbone, Five Whys, Pareto, incident review and patient/staff insight to generate and test hypotheses.

Core tools in the workbook

5W2H

Gemba

Process map

Fishbone

Five Whys

Pareto

Human factors

AMU example

"Discharges are slow" becomes: patients who are clinically ready to leave often wait several hours because medicines, documentation and transport are started sequentially and ownership varies across the day.

Step 1 team prompt: Can we explain what is happening, to whom, where, how often and why it matters without naming the solution?

STEP

2

DEFINE & AIM

Define the problem and aim

What exactly are we trying to improve?

Main purpose

Turn a broad concern into a precise improvement question with a defined scope and measurable ambition.

Separate the current problem from the solution you may later test. Define who and what is in scope, what success will look like, and by when.

Output

A clear problem statement, measurable aim and agreed project scope.

Write the problem statement

Describe the current gap and its impact without embedding the intervention.

Set the aim

Define population, setting, measure, desired level of improvement and timeframe.

Communication

Prepare a 30-60 second elevator pitch: problem, why it matters, aim, approach and the ask.

Set boundaries

Clarify what is in and out of scope so the work is achievable and safe.

Find sponsorship

Identify who can support the project, remove barriers and help align it with local priorities.

Core tools in the workbook

Problem statement

SMART aim

Scope

Project charter

Benefits statement

Elevator pitch

AMU example

"Reduce median time from clinical decision to discharge to leaving the AMU from 180 to 90 minutes by March 2027, without increasing 7-day unplanned reattendance."

Step 2 team prompt: Is the aim specific enough that another person could tell whether we achieved it?

STEP

3

CHOOSE CHANGES

Choose change ideas

What changes are most likely to help?

Main purpose

Turn what you have learned into a visible theory of change and choose the first interventions to test.

Use a driver diagram to connect the aim to the system conditions that must change. Co-design interventions with the people who do and experience the work.

Output

A prioritised set of change ideas with a clear rationale for why they should influence the aim.

Build the theory

Link aim → primary drivers → secondary drivers → specific change ideas.

Map stakeholders

Consider influence, interest, readiness, current position and how best to engage them.

Change management

Think about who needs to support the change, what matters to them and how they can be influenced or involved.

Prioritise ideas

Discuss impact, deliverability, risk, equity and learning value rather than relying on a score alone.

Plan roles and risk

Use RACI, FMEA or other tools where the complexity of the change justifies them.

Core tools in the workbook

Driver diagram

Co-design

Stakeholder map

Influencing plan

Impact/deliverability

RACI

FMEA

AMU example

A driver diagram may show that earlier recognition of likely discharge, parallel completion of tasks, reliable medicines processes and visible ownership are the conditions needed to reduce discharge delay.

Step 3 team prompt: Can we explain why the selected changes should influence the aim, and who must be involved for them to work?

STEP
4

TEST & MEASURE

Test and measure improvement

Are the changes working?

Main purpose

Test changes safely, learn quickly and use data over time to decide whether the system is improving.

Define a small useful family of measures, then run small tests. Study what actually happened and decide whether to adapt, adopt or abandon.

Output

Evidence of improvement or learning, with the intervention adapted through testing.

Define measures

Use outcome, process and balancing measures with clear operational definitions.

Run PDSA cycles

Plan, do, study and act. Record predictions, context, learning and the next test.

Remember

Write a prediction before the test. A PDSA that generates useful learning is valuable even when the change does not work.

Plot data over time

Use run charts or appropriate SPC rather than relying only on pooled before-and-after percentages.

Add qualitative learning

Patient and staff feedback can explain why the numbers changed or why an intervention struggled.

Core tools in the workbook

Measurement plan

Operational definitions

PDSA

Run chart

SPC

Learning log

AMU example

Test an expected-discharge flag on one shift, predict what will happen, annotate the run chart, gather staff feedback and use the result to design the next PDSA.

Step 4 team prompt: Do our data and experience show evidence of improvement, and is each test generating explicit learning?

STEP

5

SUSTAIN & SHARE

Sustain, spread and share

Will the improvement last and help others?

Main purpose

Move from a successful test to a reliable way of working that survives beyond the original project team.

Embed the new process in workflow, roles, digital systems, induction and monitoring. Decide what will happen if performance falls and how the learning will be shared.

Output

An embedded improvement with ownership, ongoing measurement and transferable learning.

Implement

Move from tests to routine practice only when the change is sufficiently reliable.

Assign ownership

Name the process owner and define the ongoing measure and response to deterioration.

Spread is not dissemination

Telling others about a change is dissemination. Spread means helping another setting adopt and adapt it successfully.

Support adoption

Make the desired behaviour easier through standard work, EPR design, induction and local systems.

Share learning

Use SQUIRE, posters, abstracts, adoption materials and peer learning to make the work reusable.

Core tools in the workbook

Implementation plan

Ownership

Standard work

Sustainability plan

Communications

Spread/adoption

SQUIRE

AMU example

The improved discharge process becomes part of board round, EPR tasking and induction, has a named owner and continues to be monitored monthly.

Step 5 team prompt: Would this improvement continue if the original project lead left tomorrow?

PUTTING IT TOGETHER

One AMU problem through all five steps

Example: patients remain on the AMU for hours after the clinical decision to discharge.

1 UNDERSTAND

2 DEFINE & AIM

3 CHOOSE CHANGES

4 TEST & MEASURE

5 SUSTAIN & SHARE

Step	Example
1 • Understand	Process mapping shows medicines, documentation and transport are often started sequentially, with variable ownership.
2 • Define & aim	Reduce median decision-to-departure time from 180 to 90 minutes by March 2027 without increasing 7-day reattendance.
3 • Choose changes	Driver diagram points to earlier recognition of likely discharge, parallel tasking, a reliable medicines process and visible ownership.
4 • Test & measure	Small PDSA tests trial an expected-discharge flag and early medicines request; an annotated run chart shows whether performance changes.
5 • Sustain & share	The final process is embedded into board round, EPR tasking and induction with a named owner and ongoing monthly measure.

Notice the logic. Process mapping helps explain the problem; the aim focuses the work; the driver diagram turns learning into a theory; PDSA tests the ideas; measurement determines whether the system is improving; implementation makes the new process routine.

Use the quick guide for

- orientation and induction
- brief QI teaching
- explaining the five steps to an MDT
- framing an early project conversation

Use the full workbook for

- step-by-step tool instruction
- worked acute medicine examples
- stakeholder/change-management tools
- measurement, PDSA, SPC and sustainability
- templates and checklists

Key external resources

- NHS England: NHS IMPACT / What is improvement?
- Institute for Healthcare Improvement: Model for Improvement
- Advancing Quality Alliance (AQuA): QSIR Tools
- Royal College of Physicians: RCP Improvement resources

Use local clinical governance, information governance, research and professional requirements. The comprehensive workbook explains these boundaries in more detail.