# CLINICAL AUDIT

DR NARAYAN PENDSE, MD MPH
VICE PRESIDENT – MEDICAL STRATEGY & OPERATIONS,
FORTIS HEALTHCARE, INDIA

# Clinical Care & Quality

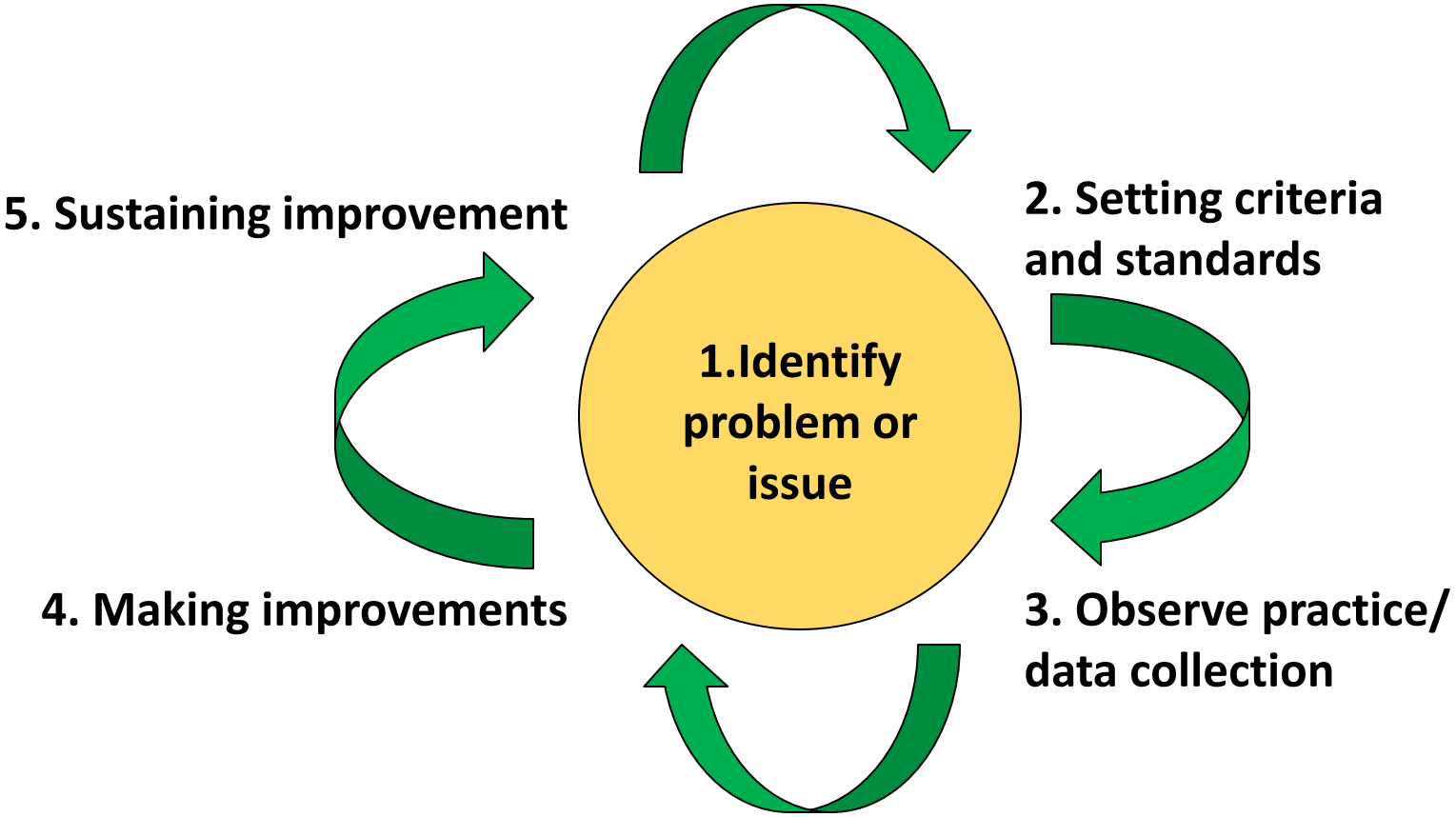
- Performance measures and quest to improve - an integral part of Medicine
- Nightingale, Codman, NHS
- Tools –
  - Peer Review – case, outcomes
  - Case File Audit
  - Morbidity & Mortality Meetings
  - CPC, CRC and other Clinical Correlation forums
  - Clinical Outcomes, Clinical Quality Indicators (PROM)
  - Incident Analysis
  - CLINICAL AUDIT

# Definition

- ***Evaluation*** of data, documents and resources to ***check*** if performance of systems meets ***specified standards***.
- A ***quality improvement*** process that seeks to ***improve*** patient care and outcomes through ***systematic review*** of care against ***explicit criteria*** and the implementation of ***change***.
- Where indicated, ***changes are implemented*** at an individual, team, or service level and ***further monitoring*** is used to confirm improvement in healthcare delivery.

*Research is concerned with discovering the right thing to do; audit with ensuring that it is being done right*

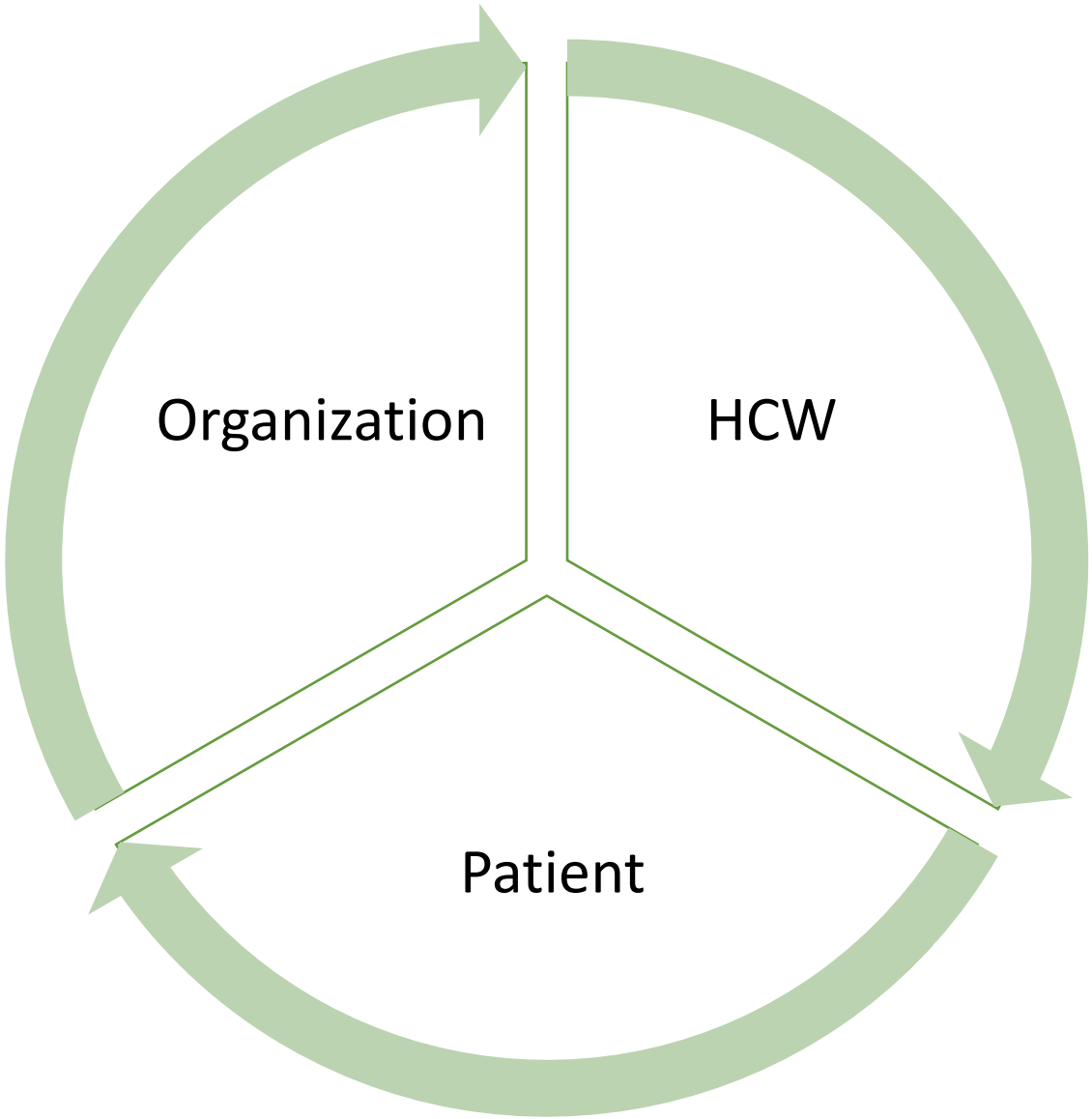
# Clinical Audit Cycle



# Pre-requisites

- Good record keeping system
- Should be carried out by fair and impartial professionals
- Confidentiality
- Purpose – quality improvement
- Ownership

# Benefits




BETTER PRACTICE, BETTER OUTCOMES

# Five elements

1. Involving users in the process
2. Topic selection
3. Defining the purpose of the audit
4. Providing the necessary structures
5. Identifying the skills and people needed to carry out the audit; training staff and encouraging them to participate.

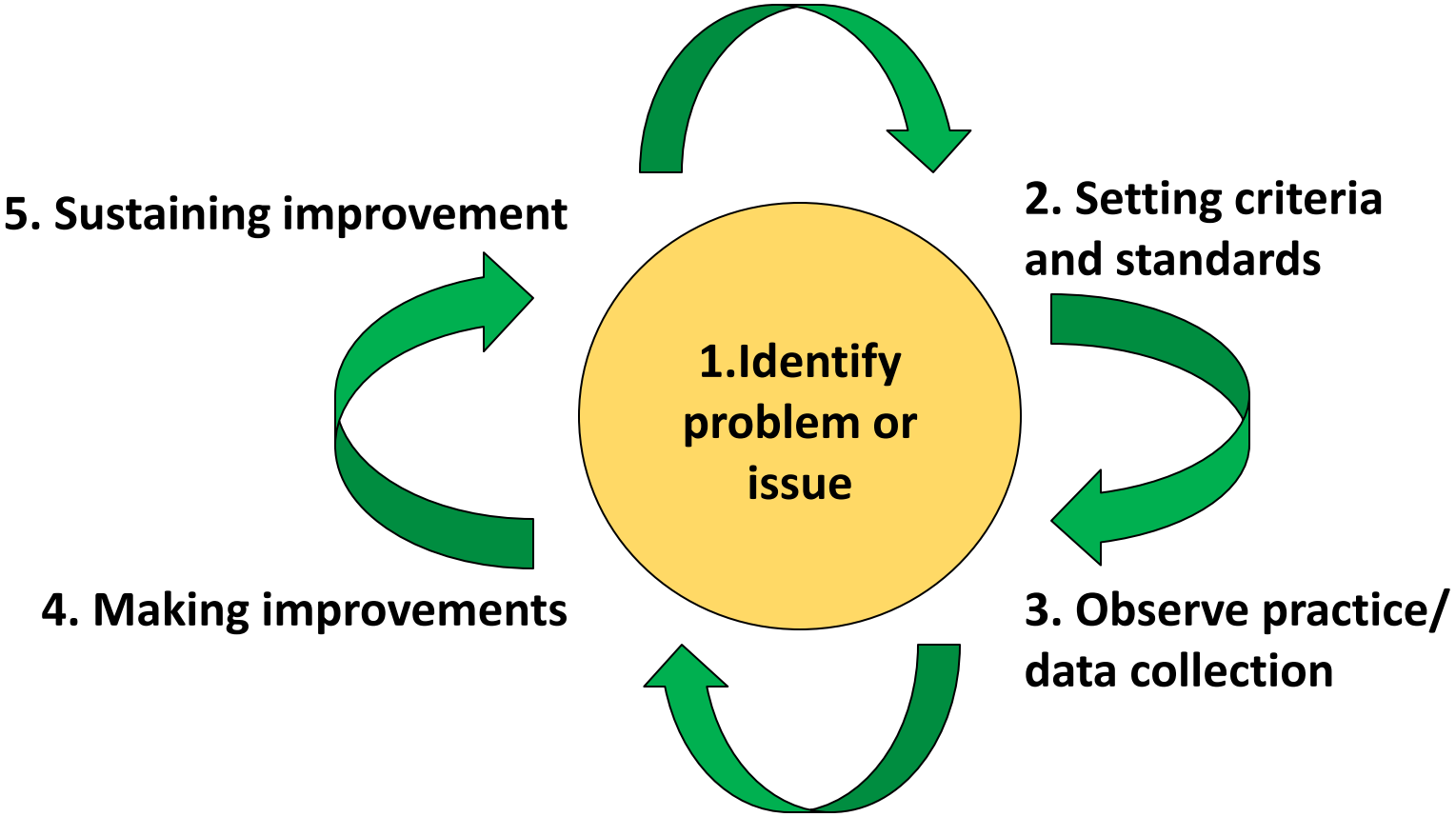
# Audit Team

- Basic understanding of clinical audit
  - Clinical Audit cycle
  - Data Collection and Analysis
  - Change implementation
- Understanding of purpose, plans and objectives of the project
- Understanding of what is expected of the project team

# Clinical Audit and Ethics

- Doesn’t need formal approval of Ethics Committee
- Should always be conducted within an ethical framework
- Abiding by the principles of data protection:
  - patient and staff confidentiality and
  - data is collected and stored appropriately

# Clinical Audit Cycle



# Sources of Information

- Formal as well as informal
- Feedback, comments or complaints – varied sources
- Critical Incident reports
- Direct observation of care
- Direct conversations

# Clinical Audit Topic – selection criteria

- **High cost, volume, or risk?**
- **Serious quality issue?**
- **Good evidence available?**
- **Amenable to change?**
- **Pertinent to organization?**

# What to Audit?

| Structure | **Process** | Outcome |
| --- | --- | --- |
| • No. of Resources<br>• Availability | • Adherence to defined protocol or treatment guideline or established norm (commonly measured as %) | • Success or failure rate, complications<br>• Change in health status (remission, death, survival rate, etc)<br>• Satisfaction |

# Usual Clinical Audit Topics relate to….

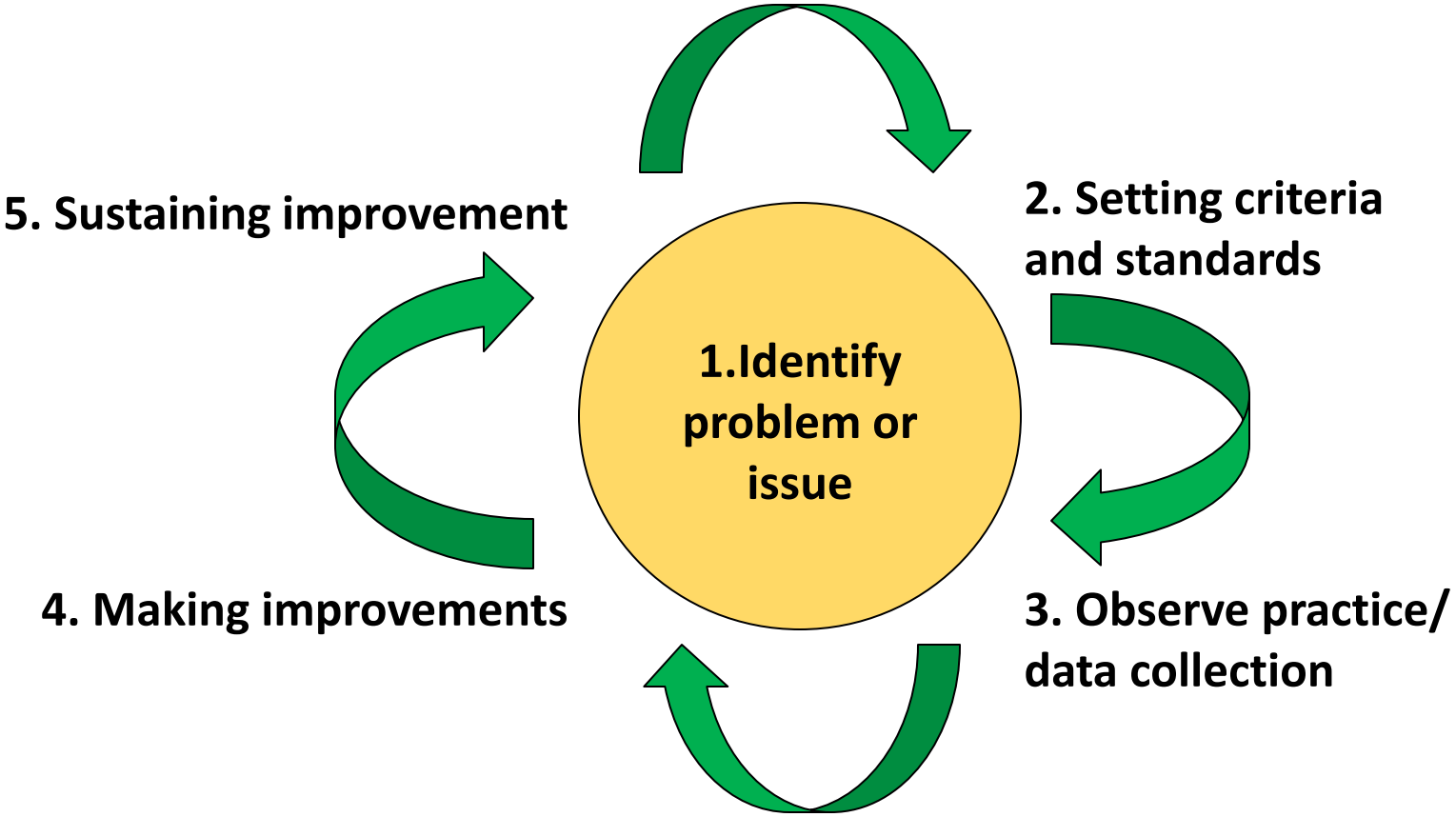
- Best practices related to treatment of specific disease
- Best practices related to specific procedures or therapies
- Long/ short stay cases
- Vulnerable groups
- Increase incidence of a disease
- Post operative infection/ complications

# Purpose of Clinical Audit – AIM & OBJECTIVE

- AIM
  - Broad Statement describing the activity/work area, and action. E.g.
    - To ***IMPROVE*** blood transfusion safety
    - To ***IMPROVE*** 5 year survival
    - To ***ENSURE*** use of Arterial graft in….

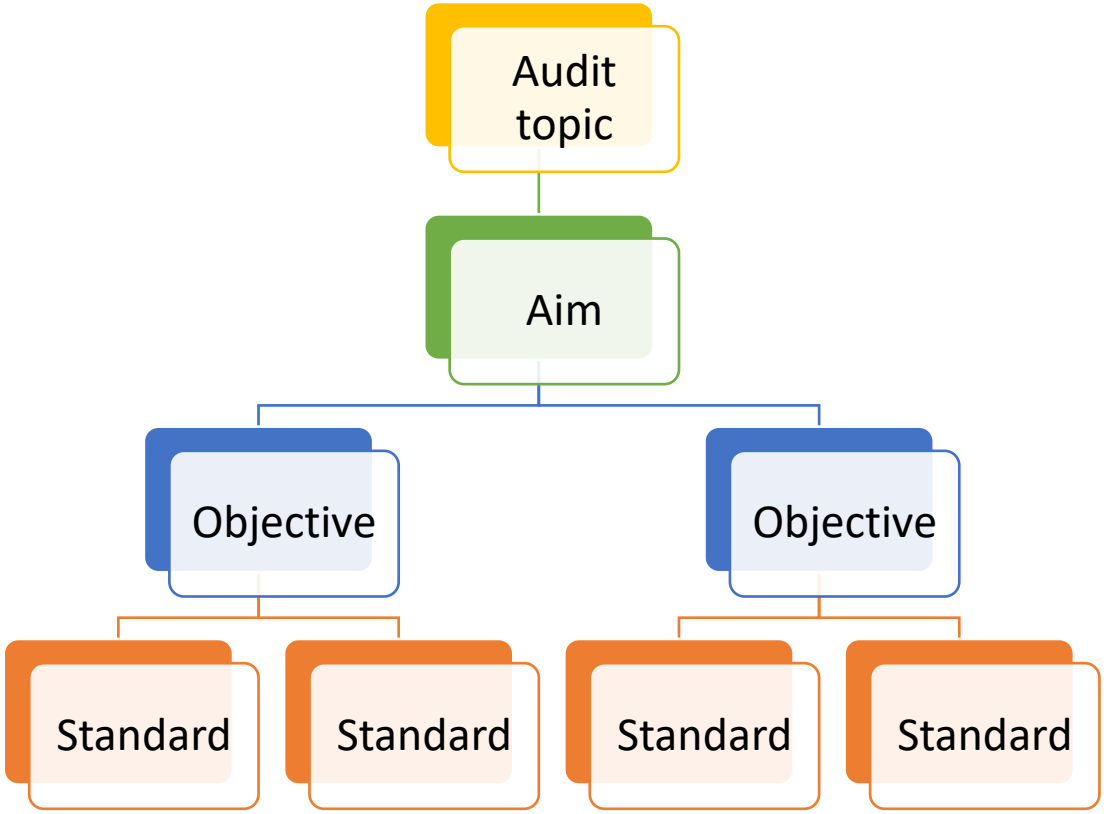
- OBJECTIVE
  - ***Steps that need to be taken*** to assess whether ‘aim’ has been achieved
  - Specific tasks to be undertaken to help achieve the aim

# Clinical Audit Cycle



# Clinical Audit - Standards

- Statement describing the quality of care to be achieved; ***definable & measurable***
- Based on best evidence – Standard of Care (Gold Standard)
- Includes Criterion and Target



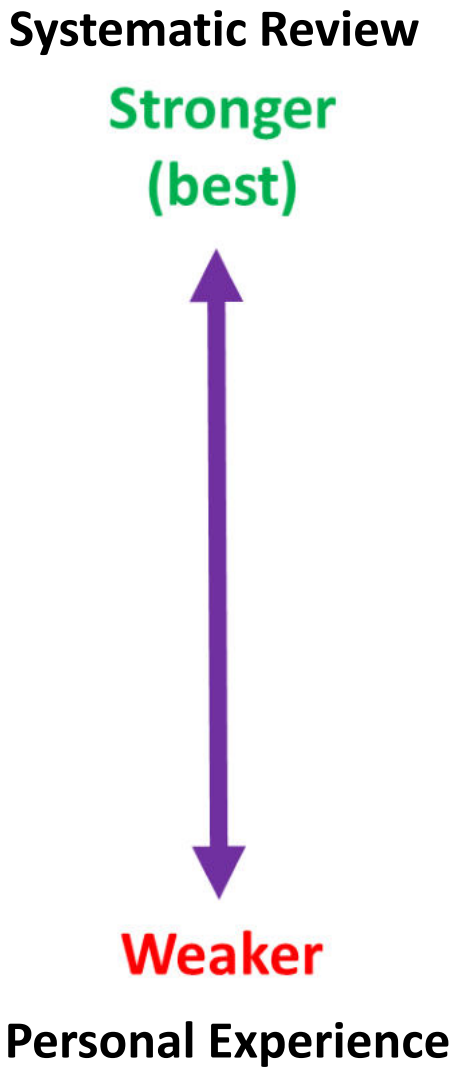

**Inclusion and Exclusion criteria**

# Examples

- 95% of children referred to the department will be seen by a member of the team within two hours of referral being received.
- 80% patients undergoing CABG Surgery will receive a Left Internal Mammary Artery graft
- 100% patients admitted to ICU shall undergo risk assessment for VTE (using ICAAP tool) within 4 hours of admission

# Selecting Standards

- Guidelines and protocols
- Literature search
  - should always be based on the strongest, most up-to-date, evidence of what constitutes best practice
- Strength of evidence

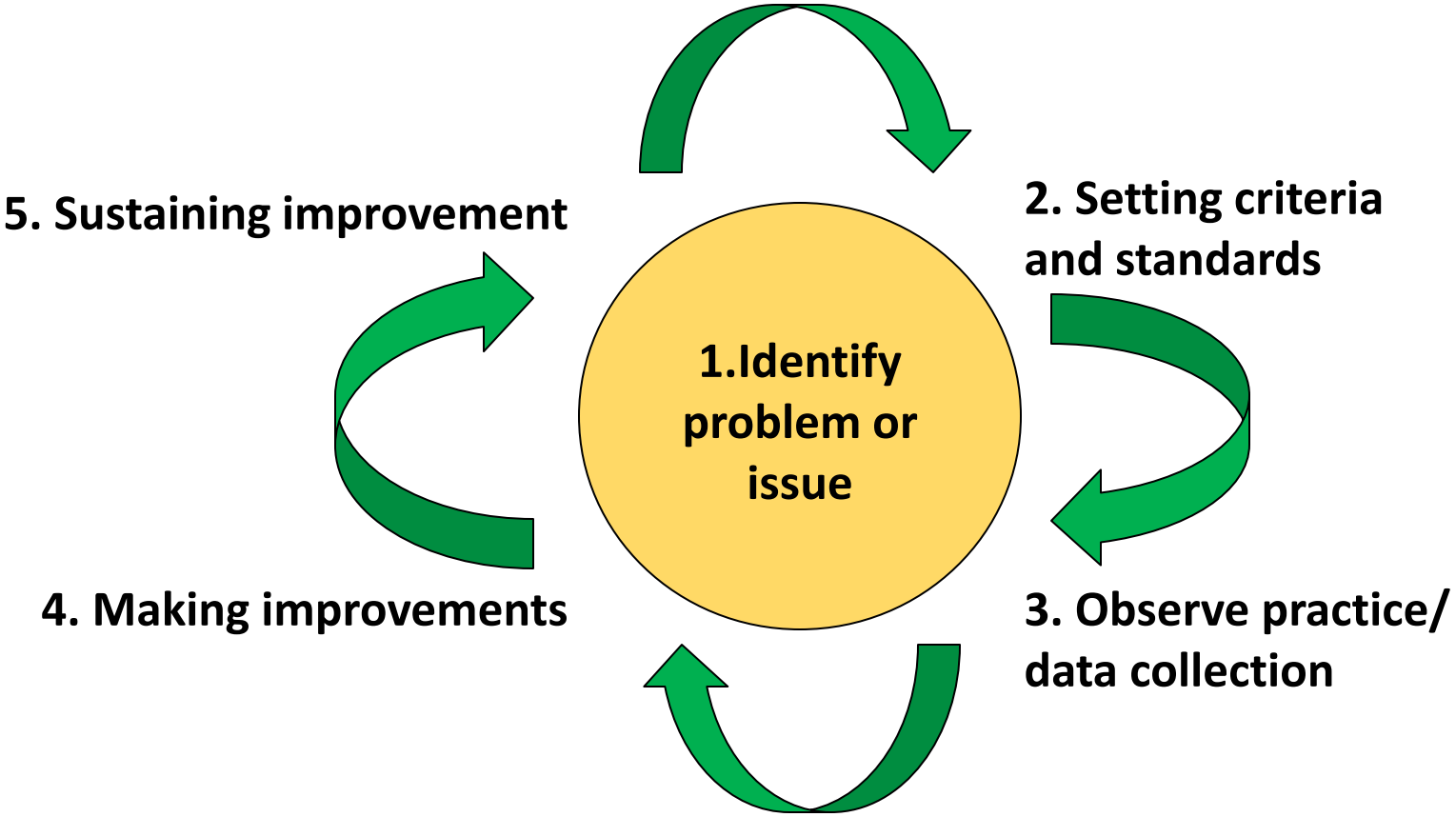


# Target Setting

- Realistic and attainable levels

- When setting targets the following factors should be considered:
  - clinical importance
  - practicability
  - acceptability

# Clinical Audit Cycle

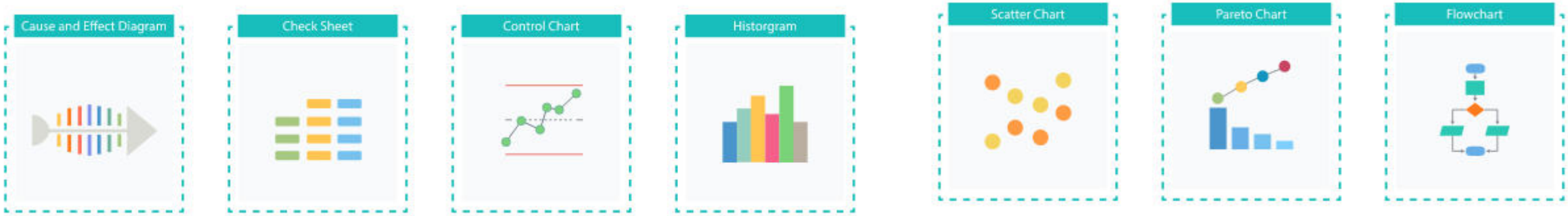


# Data Collection

- Better to improve a single aspect of care than to collect data on 20 items and change nothing.
- Quantitative vs Qualitative data
- Retrospective vs Prospective
- Data collection form/format
- Source of Data
- How much data?
- Confidentiality

# Data Analysis

- Arrive at general pattern of actual practice
- Assess the degree to which actual practice (results of audit) is meeting the standards set
- Identify cases where it is clinically acceptable for the standards not to be met
- Basis statistics – Frequency, distribution, etc
- E.g.
  - % of cases ***meeting each standard*** (calculated from whole sample including non-applicable cases)
  - % of cases ***not meeting each standard*** (again including non-applicable cases)

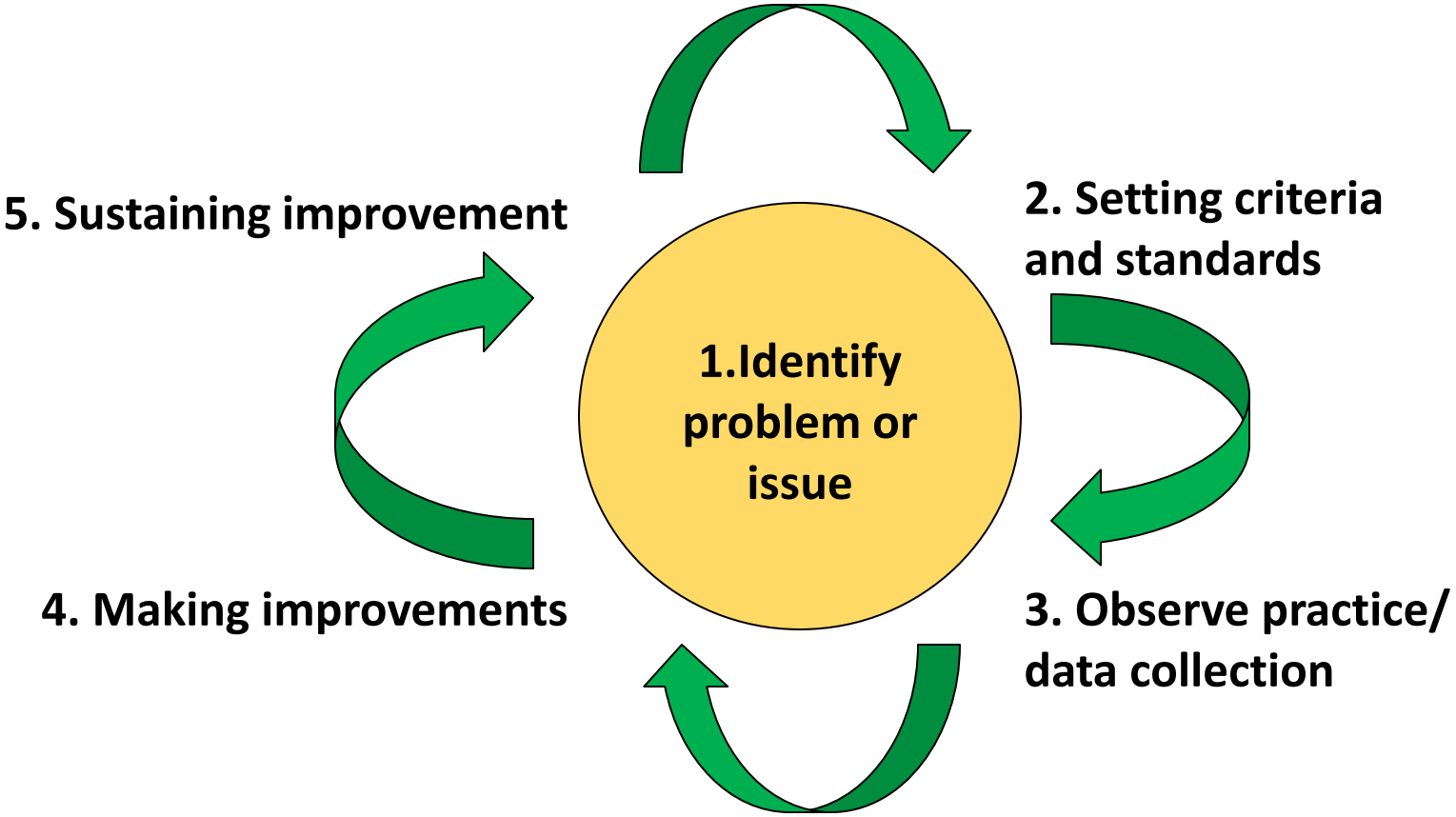


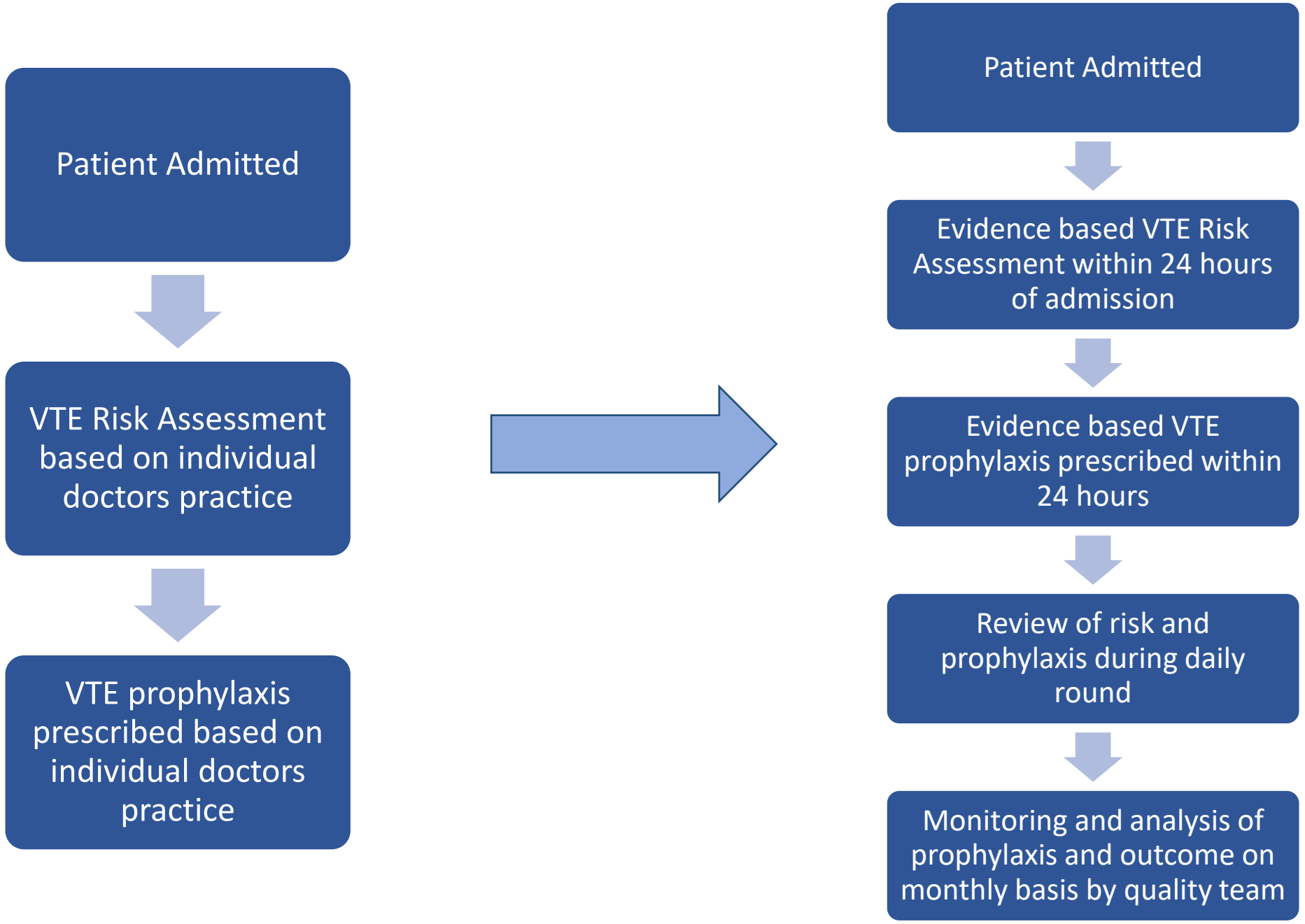
# Outcome of Data Collection & Analysis

**AUDIT REPORT**

- Background
- Aim, objectives and standards
- Methodology
- Results
- Conclusion
- References, Appendices
- Deficiency of Care
- Proposed Change/Solutions
- Dissemination – Active/Passive
- Action Plan; timelines

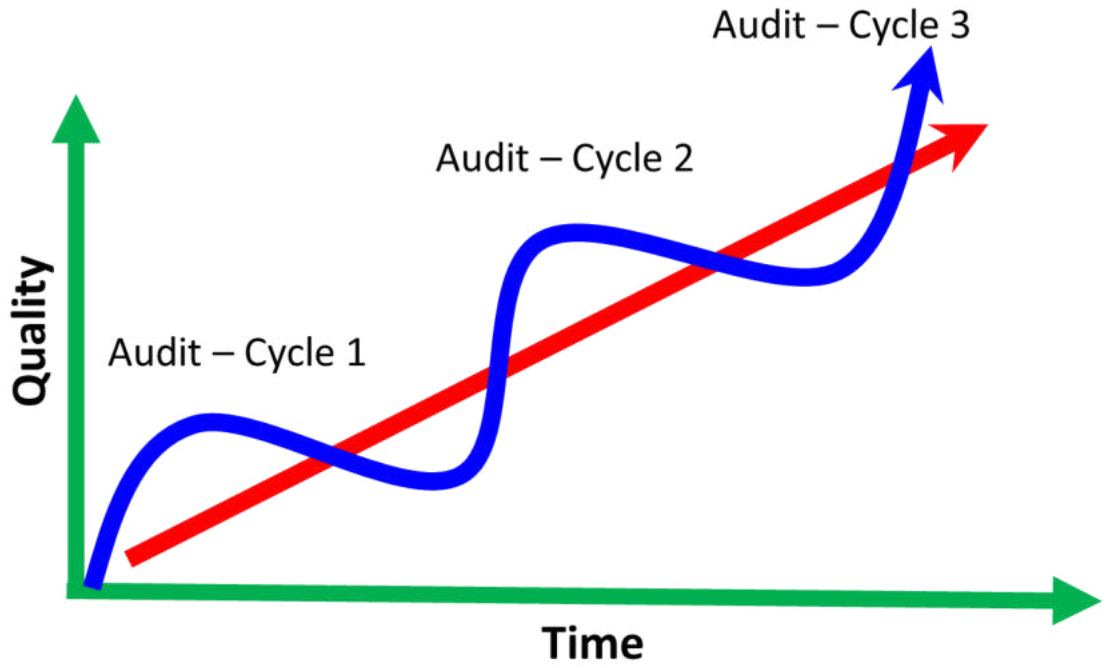
# Clinical Audit Cycle




Patient Admitted
VTE Risk Assessment based on individual doctors practice
VTE prophylaxis prescribed based on individual doctors practice
Patient Admitted
Evidence based VTE Risk Assessment within 24 hours of admission
Evidence based VTE prophylaxis prescribed within 24 hours
Review of risk and prophylaxis during daily round
Monitoring and analysis of prophylaxis and outcome on monthly basis by quality team

# Initiating and Sustaining Change

- Clinical Audit involves change in practice/ways of working
- Engagement and ownership
- Role of opinion leaders
- Communication is THE KEY
- Change cycles – PDCA/PDSA
- Monitor and evaluate
- Re-audit



# Key Points

- Audit measures practice against performance
- Audit cycle involves five stages:
  1. preparing for audit;
  2. selecting criteria;
  3. measuring performance level;
  4. Making improvements;
  5. sustaining improvements

# Key Points

- Choose audit topics carefully
- Derive standards from good quality guidelines
- Use action plans to overcome the local barriers to change
- Repeat the audit to find out whether improvements in care have been implemented and are being sustained

# Way forward

- When done well, clinical audit provides a way in which the quality of the care can be reviewed objectively, within an approach that is supportive and developmental.

- Clinical audit provides practitioners with a systematic response that compares the care provided with the best practice, while preserving the central role of the clinical team in agreeing and implementing plans for change.

# CASE STUDY - KIDNEY HOSPITAL

**Topic:** TURP

**Purpose/Aim:** To improve patient satisfaction after TURP

## Background:

Unless selected carefully, large percentage of patients undergoing TURP procedure can be dissatisfied with the result. TURP is excellent operation for obstruction but ineffective if main problem is bladder over- or under-activity. Patients with most severe symptoms are most likely to show maximum improvement after surgery, while those with only mild/moderate symptoms may not have much improvement.

Evidence based globally accepted standard of care -

- IPSS scoring is best way of measuring severity of symptoms
- Uroflowmetry (U/F) is the best way to screen objectively for bladder outlet obstruction.

## CURRENT PRACTICE AND BASELINE DATA

- Retrospective data of patients undergoing TURP collected
- Date Range – 06 months (n=120)
- 76% patients reported adequate improvement at first follow up post- surgery

**Pre-Audit meeting with Urology consultants; formation of Specialty Group – data presentation**

## GAPS IDENTIFIED & ACTION PLAN

- Lack of structured and objective Pre-Operative assessment - Introduce IPSS & Qmax for every patient
- Follow up timeline not defined (inter consultant variation) – agreement for follow up at 06 weeks
- Post TURP assessment not structured – Introduce IPSS & Qmax for each follow up
- Junior Registrar tasked with Questionnaire completion and weekly sign off by Consultant

## Objectives:

Improve patient selection for surgery by using IPSS (International Prostate Symptom Score) cut-off of >20/35

and

Peak Urine Flow rate ($Q_{max}$) cut off of <15ml/sec.

## Standards:

1. 100% of patients being considered for TURP should have IPSS record and Uroflowmetry before surgery (excluding those already in urinary retention).
2. 90% of all operated patients should be reviewed 6 weeks after surgery, with repeat IPSS and U/F, to assess patient satisfaction with surgery.
3. 90% of patients should have IPSS <8/35 and $Q_{max}$ > 18ml/sec after TURP.

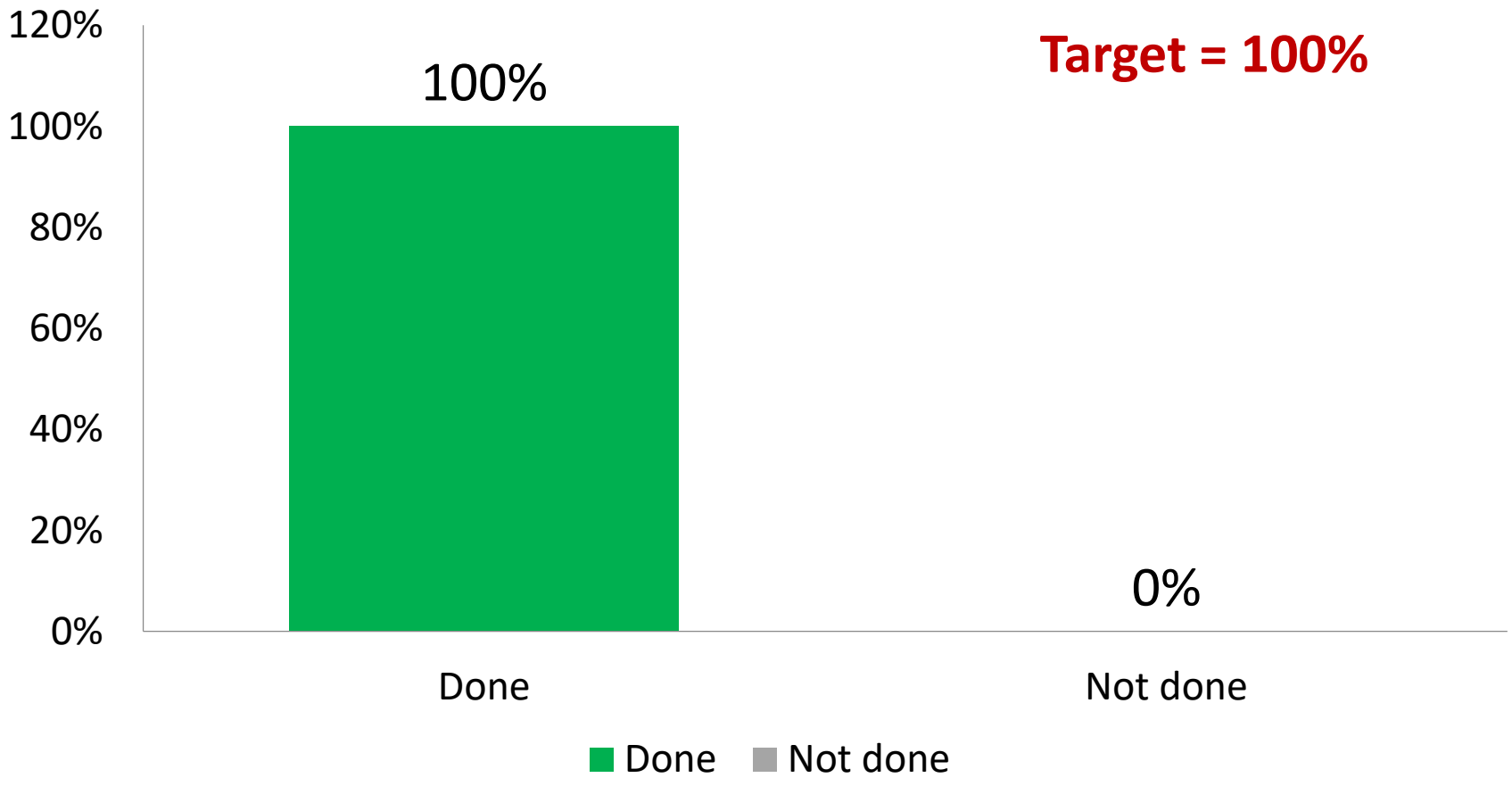
## Pre Op (n=77)

| Indication for Surgery | IPSS | | $Q_{max}$ (ml/sec) | |
|---|---|---|---|---|
| | >20 | <20 | <15 | >15 |
| Urinary Difficulty | 66 | - | 66 | - |
| Haematuria | - | 2 | - | 2 |
| Bladder Stone | 2 | - | 1 | 1 |
| Failed Medical Treatment | - | 7 | 7 | - |

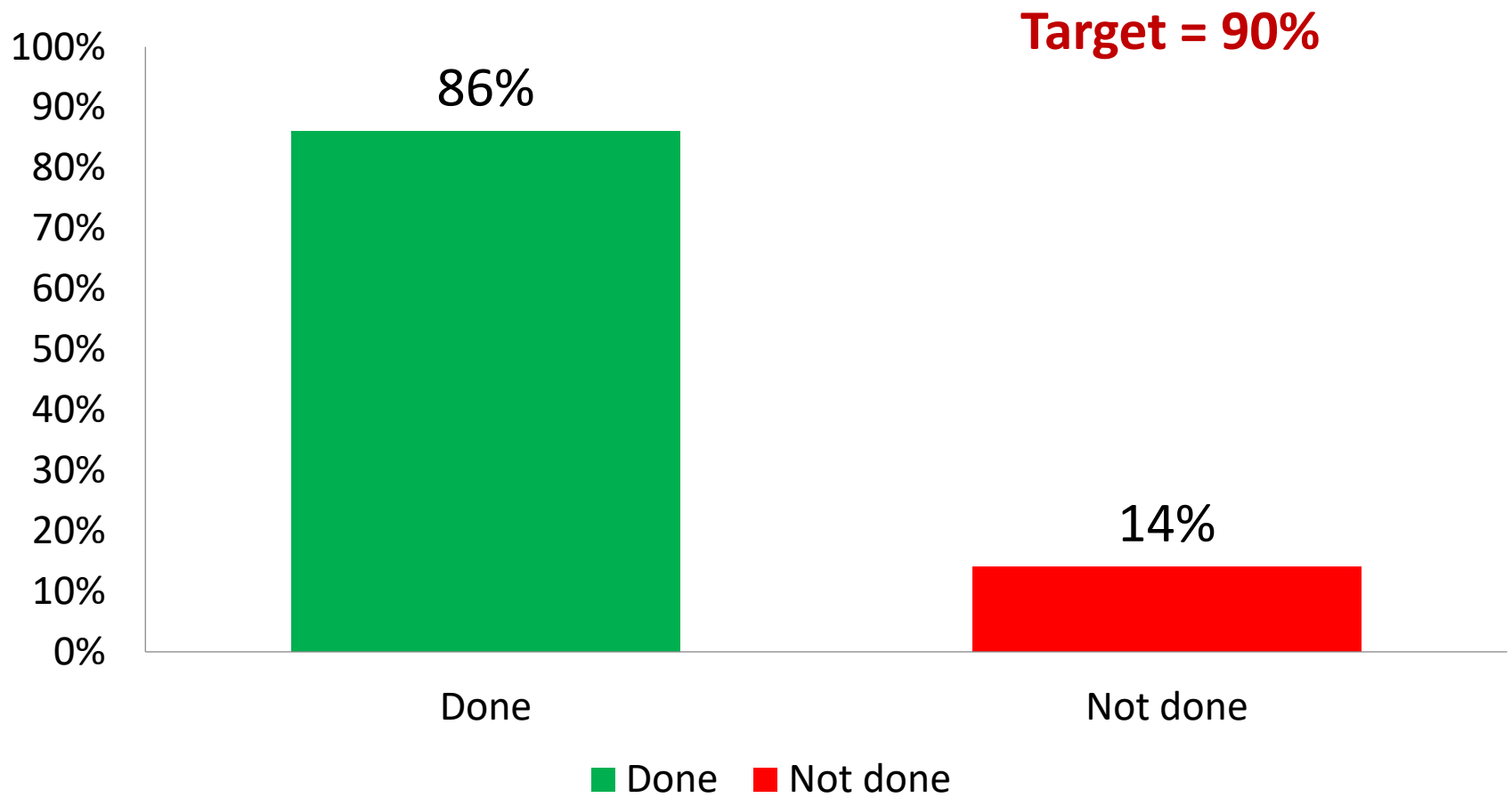
## Post Op (n=66)

| Indication for surgery | Did not attend for follow-up | IPSS | | $Q_{max}$ (ml/sec) | |
|---|---|---|---|---|---|
| | | <8 | >8 | >18 | <18 |
| Urinary difficulty | 7 | 56 | 3 | 59 | - |
| Haematuria | 2 | - | - | - | - |
| Bladder Stone | - | 2 | - | 2 | - |
| Failed Medical treatment | 2 | 3 | 2 | 4 | 1 |

# Pre-op assessment (IPSS & Uroflowmetry)



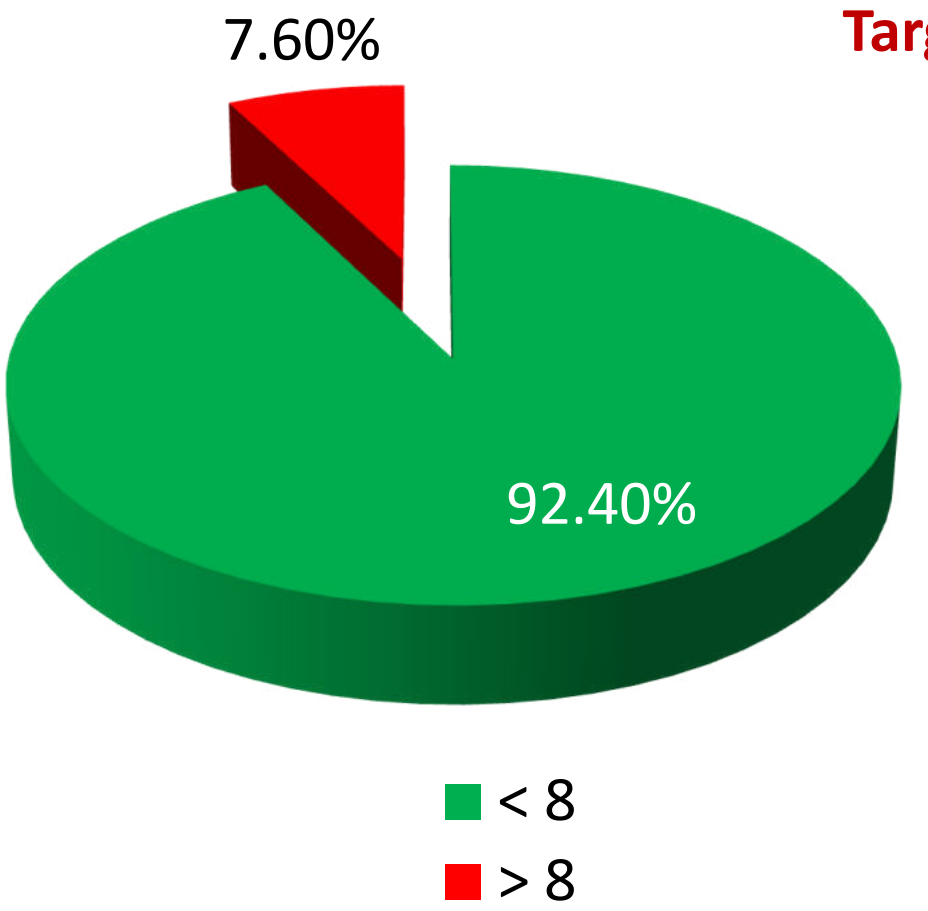
# Follow up (6 weeks post TURP)

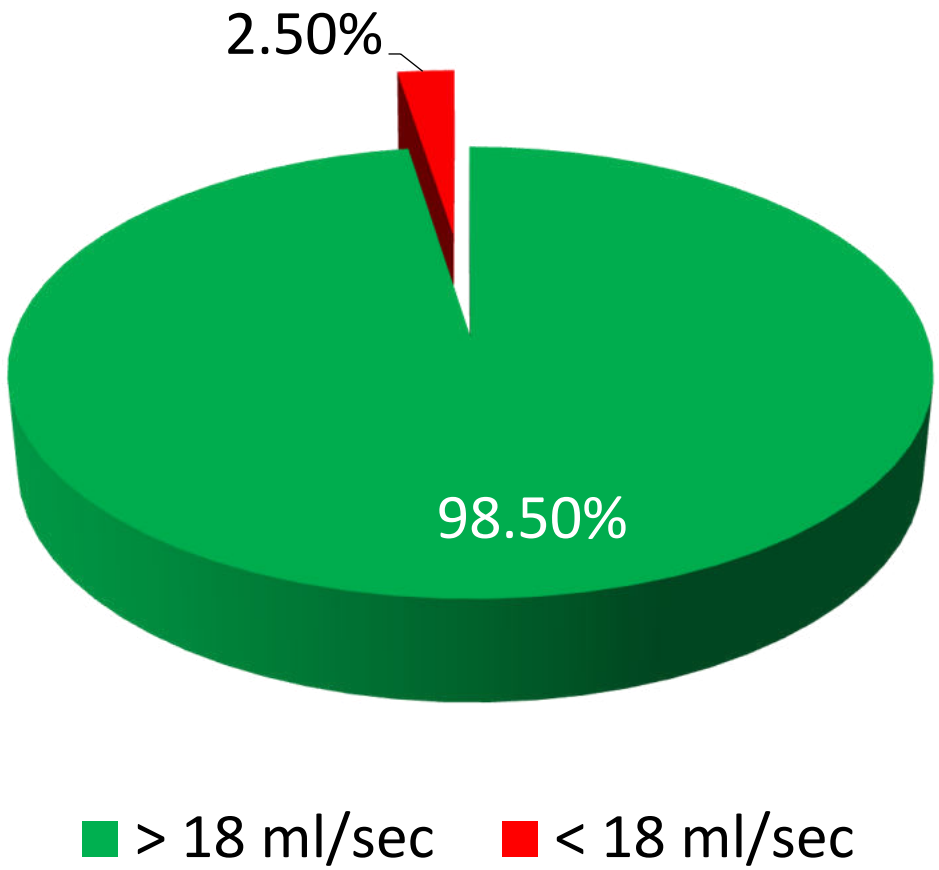


# IPSS

# $Q_{max}$ > 18ml/sec

**Target = 90%**



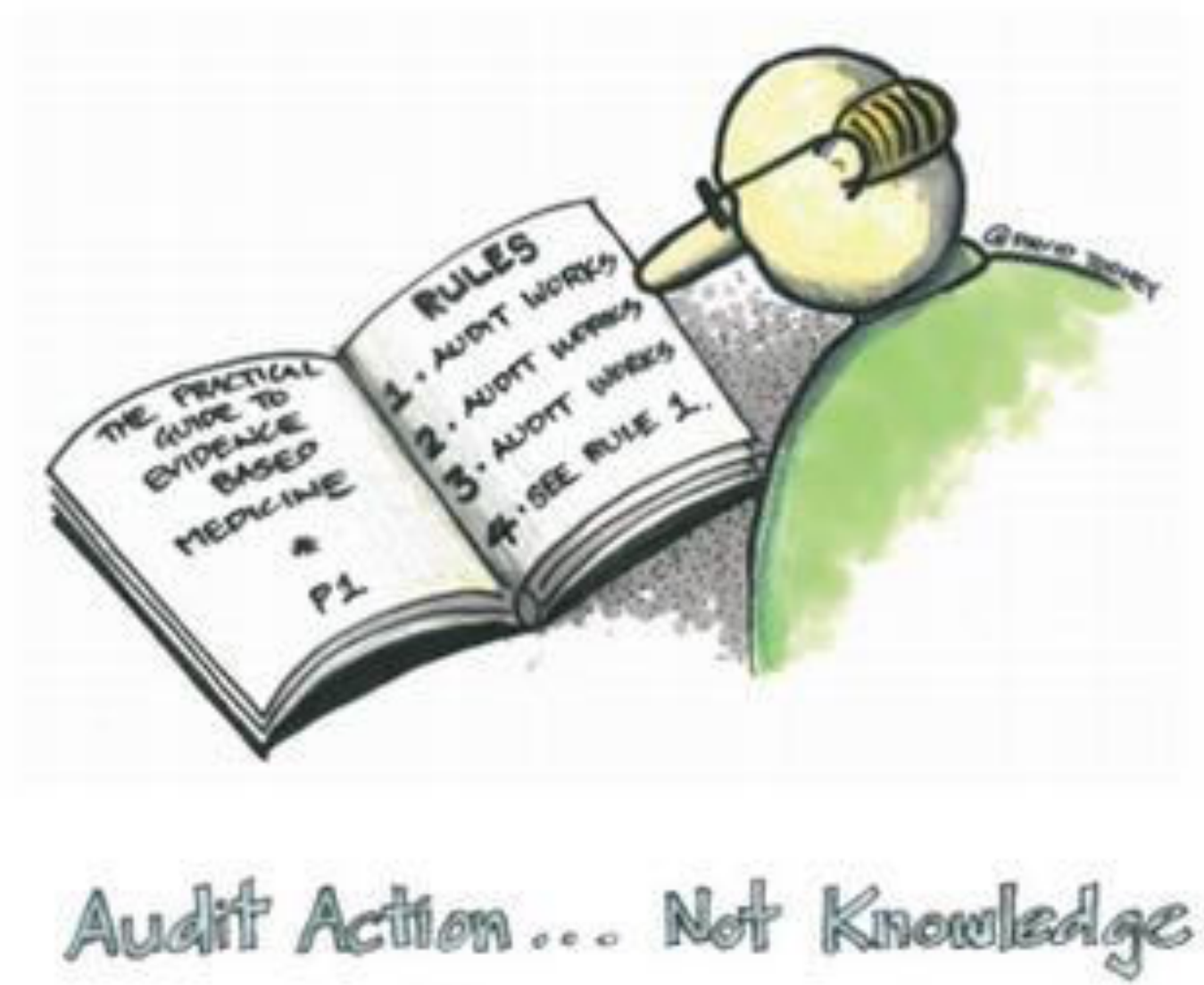



- PRE AUDIT - **76% success rate**
- POST AUDIT - **>90% success rate with IPSS, Uroflowmetry based screening**

AUDIT REPORT – Tabled at Specialty Group and at Hospital Council Meeting

OPPORTUNITY FOR IMPROVEMENT – Improve adherence to follow up after TURP

NEXT STEP – Sample based re-audit at twice at 2-month interval




Audit Action... Not Knowledge

**THANK YOU**