

# Quality Street

## – A NOCA Story of Data Quality .....

Marina Cronin

**NOCA** National Office of  
Clinical Audit

# Data for National Clinical Audit




## 2017 Activity-Based Funding Conference “The Quality Agenda”

# National Clinical Audit

‘a cyclical process that aims to improve patient care and outcomes by systematic, structured review and evaluation of clinical care against explicit clinical standards on a national basis.’

(NCEC)



**National  
clinical  
audit -A  
dashboard  
of clinical  
care**

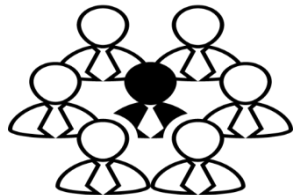
Good Data  
driving  
Good  
Decisions

# About NOCA

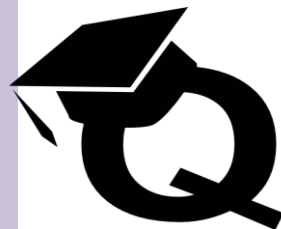
- Established in **2012**
- HSE QID Funded
- Based in RCSI



- Design, implement & manage new national audit
- Set governance standards for NOCA audits – meetings, data protection/ security, data set, data quality, PIA, reporting



- Produce hospital and national level reports , recommendations for improvement
- Inform & escalate outliers within HSE Accountability Framework
- Promote use of national clinical audit data



- Training programmes
- Research studies
- Sharing of learnings arising from national audits

## Current Audit Portfolio

#	Audit	National Report	Public Hospitals	Live	2017	2018
1	National Audit of Hospital Mortality (NAHM)	2016	44	44		
2	Major Trauma Audit (MTA)	2016	26	26		
3	Irish Hip Fracture Database (IHFD)	2013	16	16		
4	NPEC Severe Maternal Morbidity	2011	19	19		
5	NPEC Perinatal Mortality	2008	19	19		
6	NPEC- Vermont Oxford Network	2016	19	19		
7	Intensive Care Unit Audit (ICU)	NA	22	6	8	8
8	Irish National Orthopedic Register (INOR)*	NA	12	1	4	7

\*Phase 2 Private Hospitals

# NOCA Governance Approach



## DESIGN

- Audit Aim & Objectives
- Clinical Standards
- Methodology/ Methods
- Data set & dictionary
- Identify Data Sources
- Data protection
- National Governance Structure



## IMPLEMENTATION

- Local Governance Structures
- Local resources
- Testing
- Training
- Data validation
- On going support



## MANAGEMENT

- Data Quality
- Outlier Management
- Governance: National
- Audit Annual Review
- Audit Annual Plan
- Share learnings
- NOCA Board Approval
- Annual Reports



## NOCA AUDIT OUTPUTS

- Quarterly Hospital Reports
- Annual National Report – Key findings & recommendations
- Key recommendations to system

# Designing, Implementing and Managing

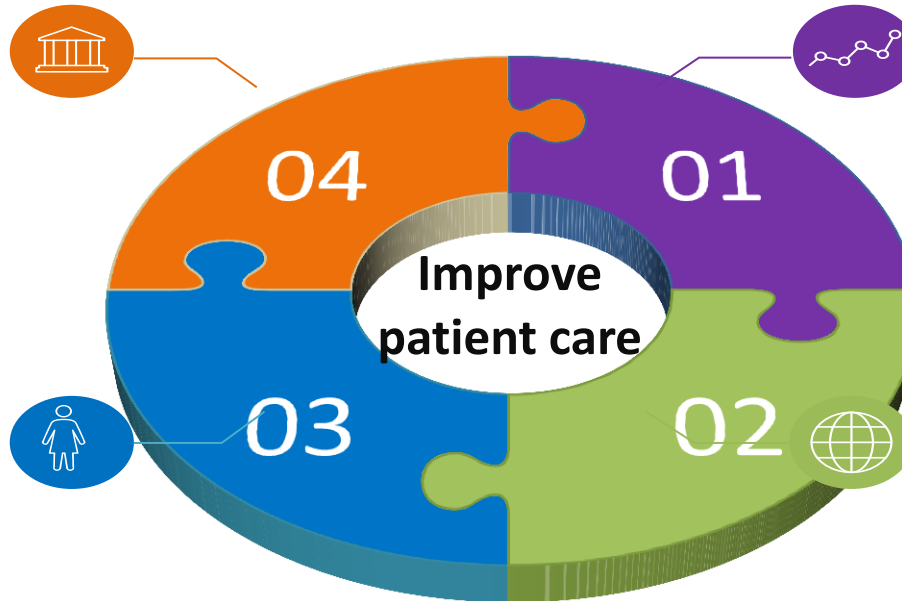
## NOCA audits



# Audit Design: MTA Aim & Objectives

Provide high quality data to enable peer reviewed research and to drive clinical change

Promote reflective clinical practice and to encourage peer performance review at local and national level



National baseline of clinical practice and performance

Identify, map and potentially improve current practice & care pathways for the seriously injured population



# Information Governance



## COMPLIANCE WITH AGREED DEFINITIONS: COMPARABILITY

HL7 Message  
Standard: INOR, ICU.

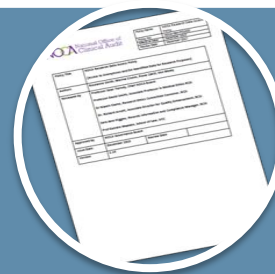
SNOMED: ICU

ICD10AM: NAHM,  
INOR, IHFD, MTA



## DATA QUALITY

Data Quality Frameworks  
Data Dictionary  
Collaboration with Key  
stakeholders  
Training



## DATA ACCESS

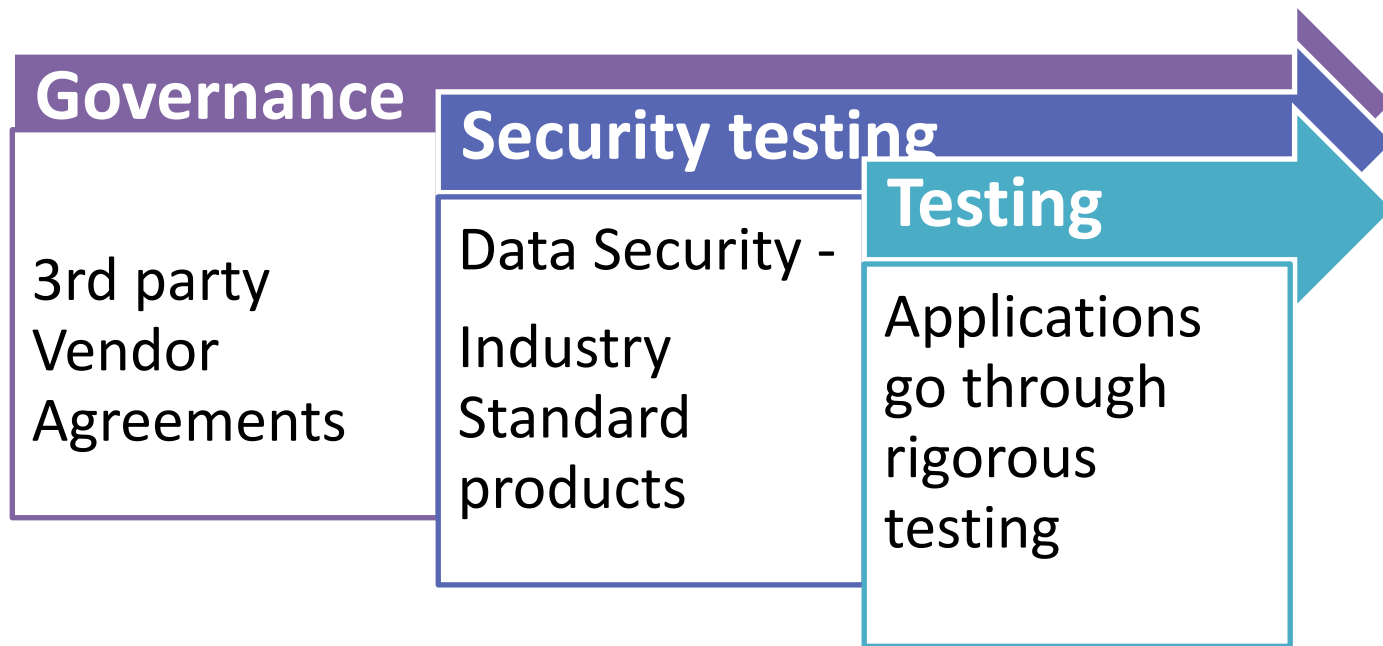
Access to data in  
accessible and  
usable format for  
patients and  
clinicians



## DISSEMINATES & REPORTS INFORMATION

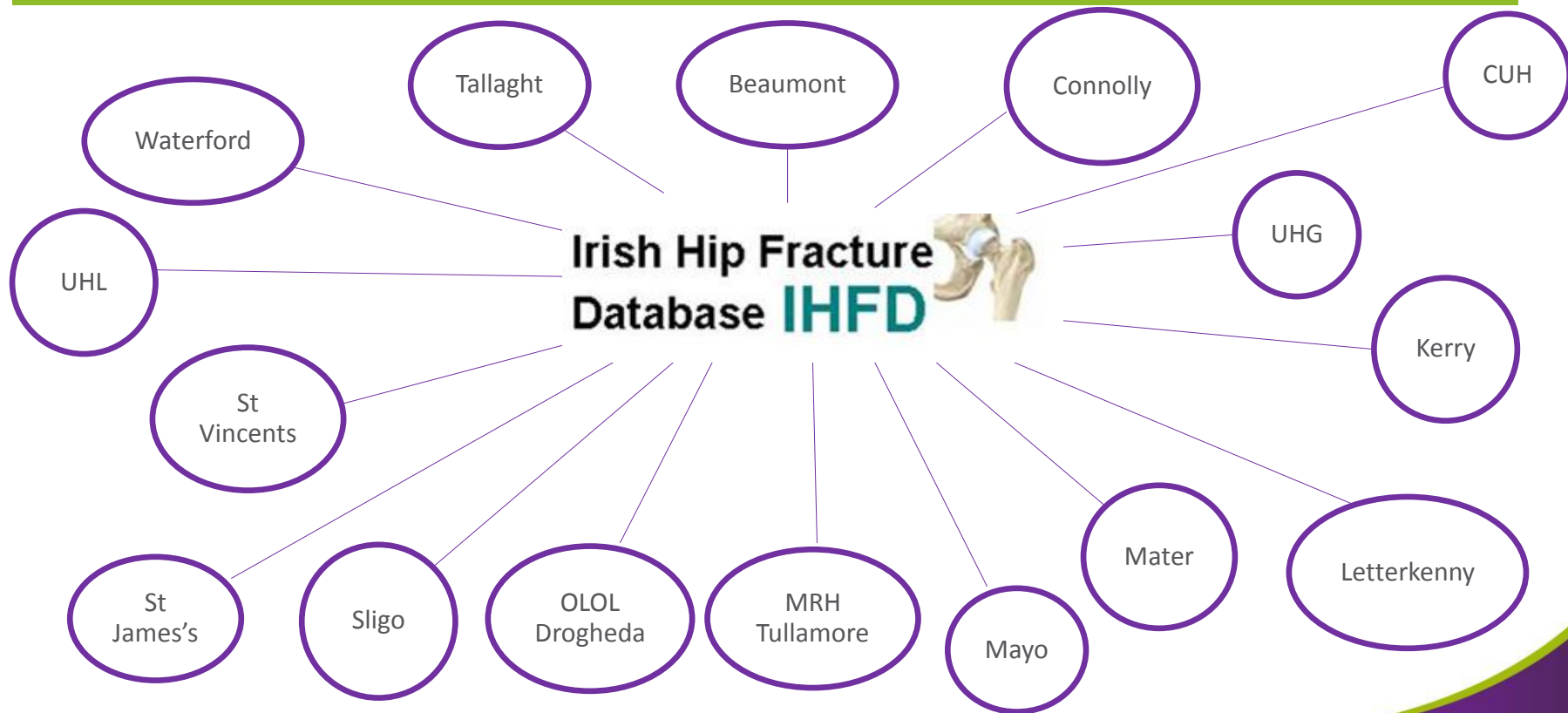
Hospital Level  
National  
Patient & Public

# Managing IT Resources



**NOCA  
Audit**

## 1 national clinical audit = 16 local audits



# Audit Implementation in hospitals

## Audit Coordinator

- Data Collection
- Data Analysis
- Audit Reports
- Audit Governance

## Dedicated Clinical Lead

- Oversight of data collection process
- Data analysis
- Audit Reports
- Audit Governance

## Hospital Governance

- Audit (eg Trauma) Committee (across Directorates)
- Hospital Q & S Committee
- Hospital Group
- Q & S Committee

## Learning and improving from MTA

- John- 84 years, Fell at home.
  - ED -complaining of severe chest pain
  - Chest x- ray - fractured ribs and a chest infection. He was treated as a traumatic chest injury.
  - Later that day, John developed an irregular heart rhythm which was treated but he became progressively more unwell. He was given antibiotics and later intravenous fluids.
  - Condition did not improve, he died six days after admission.
  - **Case for review....**
- Several important findings: recommendations -sepsis screening and appropriate escalation of care.
  - Individual case reviews: Reviewing these cases leads to systems changes and improving care, not only for trauma patients but for all patients.

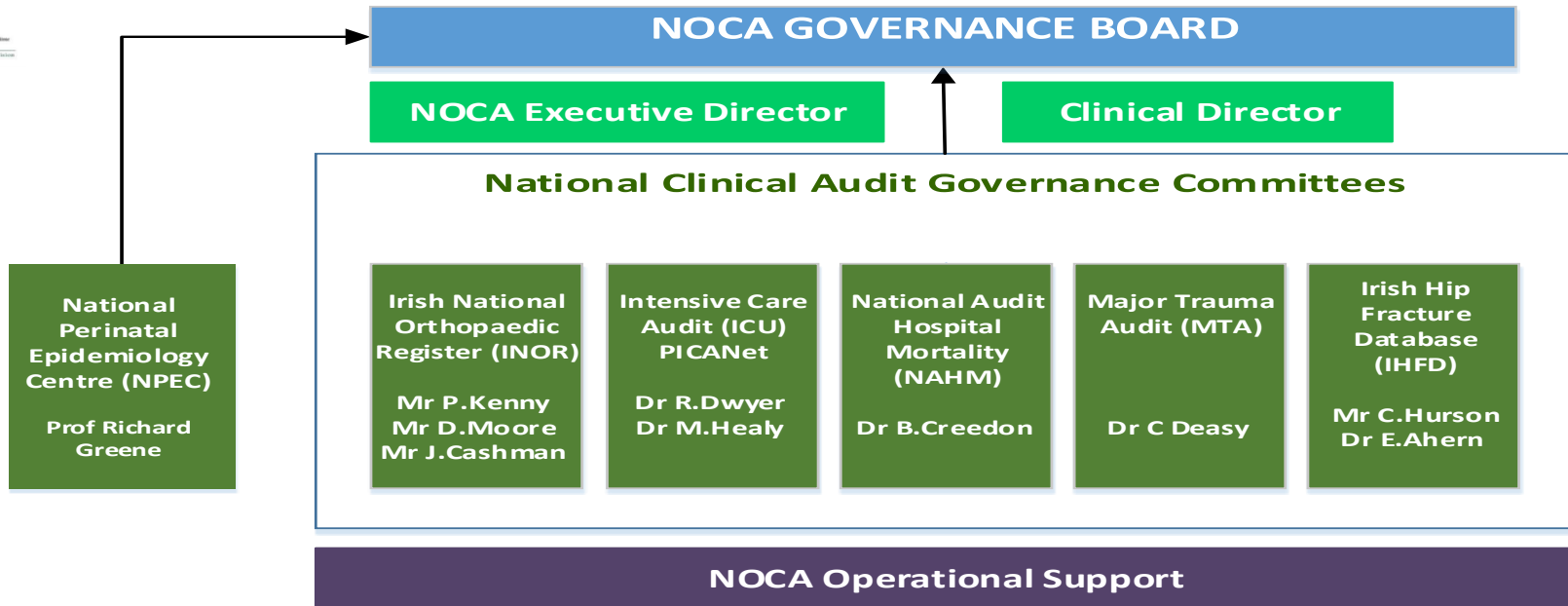
# Enabled Workforce

Hospital Audit Staff

NOCA staff



# Audit Management: NOCA Governance Structures

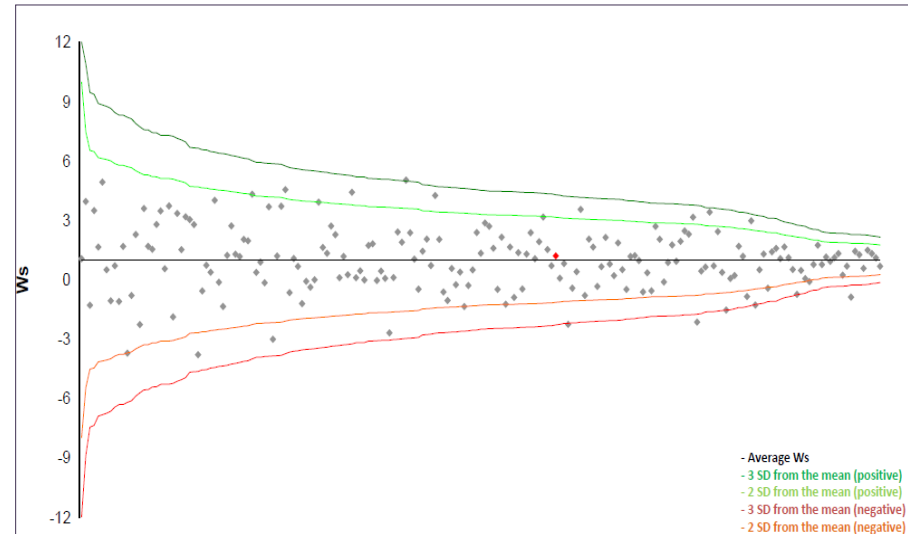


# Audit Management: NOCA Monitoring & Escalation

## DATA QUALITY



## HOSPITAL WS SCORE



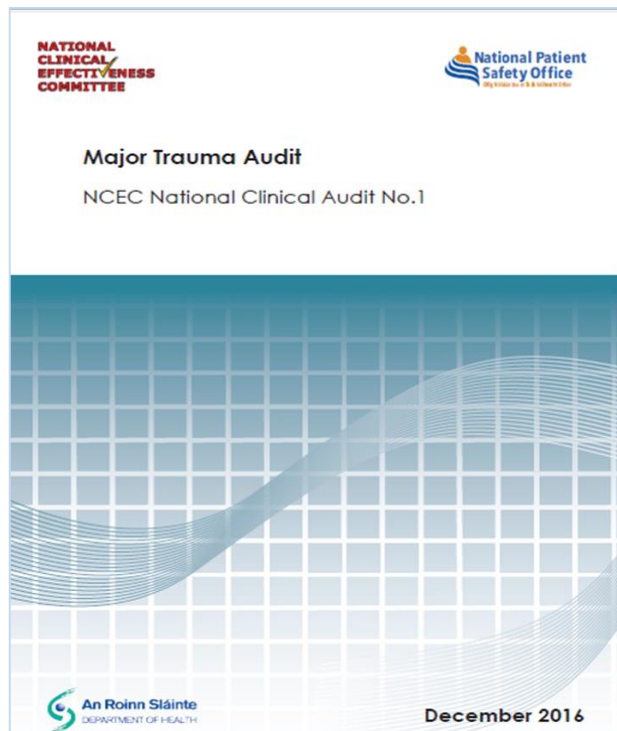


# Value of NOCA Audits

## Improving Patient Care



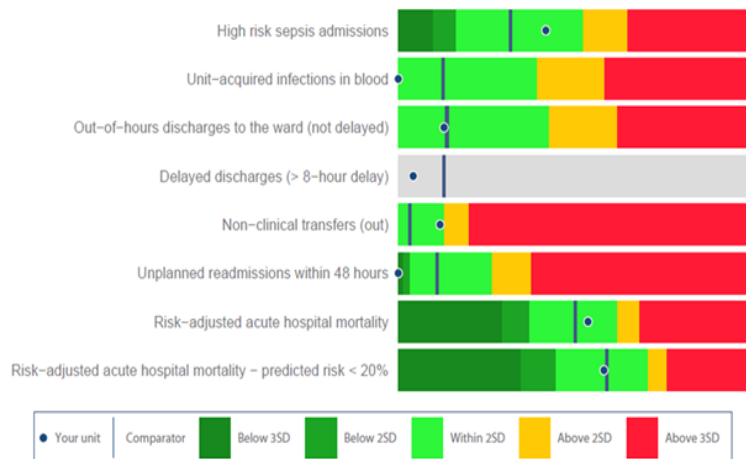
# DoH Endorsement of MTA 2016



# National ICU Audit

## Clinical Hospital Reports

Quality indicator dashboard



## Support HIPE and ABF

Case mix

	Your unit	Similar units	All units
Age (years), mean (SD)	57.5 (18.4)	61.2 (18.1)	61.5 (17.7)
Male, n (%)	417 (52.5)	(54.1)	(55.9)
Severe conditions in past medical history, n (%)			
Severe liver disease	26 (3.3)	(2.9)	(2.7)
Haematological malignancy	9 (1.1)	(1.7)	(1.9)
Metastatic disease	15 (1.9)	(1.5)	(3.3)
Prior dependency, n (%)			
Able to live without assistance with daily activities	569 (71.8)	(67.4)	(76.0)
Some (minor/major) assistance with daily activities	209 (26.4)	(31.2)	(23.0)
Total assistance with all daily activities	15 (1.9)	(1.5)	(1.0)
CPR within 24 hours prior to admission, n (%)			
Community CPR	44 (5.5)	(3.1)	(2.7)
In-hospital CPR	25 (3.1)	(4.0)	(2.8)
Source of admission, n (%)			
Emergency department or not in hospital – unplanned admission	286 (36.0)	(31.7)	(23.3)
Emergency department or not in hospital – planned admission	1 (0.1)	(0.5)	(0.8)
Theatre – planned admission following elective/scheduled surgery	42 (5.3)	(8.0)	(23.1)
Theatre – unplanned admission following elective/scheduled surgery	25 (3.1)	(2.6)	(23.1)
Theatre – admission following emergency/urgent surgery	114 (14.3)	(18.7)	(16.7)
Ward or intermediate care area	255 (32.1)	(35.2)	(26.2)
Other critical care unit – repatriation	20 (2.5)	(1.2)	(0.6)
Other critical care unit – planned or unplanned transfer	50 (6.3)	(1.2)	(4.7)
Other acute hospital (not critical care)	2 (0.3)	(0.9)	(1.0)
Severity scores, mean (SD)			
ICUAP Physiology Score	18.8 (9.4)	18.2 (9.5)	16.3 (9.1)
APACHE II Acute Physiology Score	12.6 (6.3)	12.4 (6.2)	11.0 (5.9)
APACHE II Score	16.7 (6.9)	16.8 (7.2)	15.3 (6.8)
ICUAP <sub>2015</sub> model predicted risk of acute hospital mortality (%), median (IQR)	12.5 (3.6, 35.8)	12.5 (3.6, 35.8)	12.5 (3.1, 37.5)

# National ICU Audit

- PICSANet
- Reports to Organ Donation and Transplant Ireland
- Development of Key Performance Indicators
- Bed Information System

# INOR



- Live SIVUH, MRH Tullamore
- Planning & Implementation in Cappagh, Croom

# Being person centered

## NOCA Audit



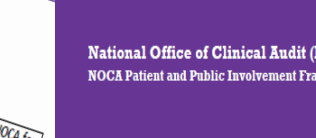
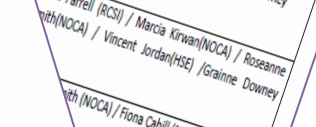
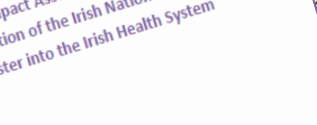
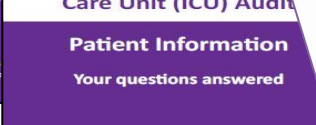
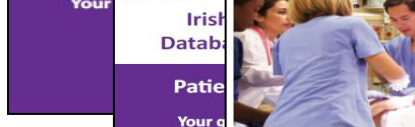
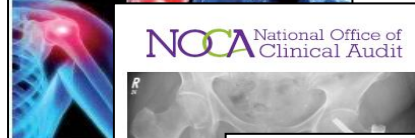
## NAHM launch, December 2016

‘Behind ..this report lies the everyday drama of life and death of real people. Every incremental improvement however small in every hospital and in this and every future report will be a small victory ... for the individual who survives, their families and loved ones.’



Mr Brian O Mahony,  
NAHM Public Representative

# Person-centred National Clinical Audit



**National Office of Clinical Audit (NOCA)**  
NOCA Patient and Public Involvement Framework



# Consent in INOR

NOCA National Office of Clinical Audit INOR Irish National Orthopaedic Register Hospital One

Patients A Pre Op RS Logout

MRN: 20001 NAME: lastname162, firstname135 DOB: 20/02/1992 GENDER: Female

**Patient Consent**

**Print INOR Consent Form** [Print Consent Form](#)

Please print out the INOR Consent Form. Ensure that the patient signs the form before progressing.

Consent to INOR: ☐ Yes ☐ No

Form is incomplete

[Cancel](#) [Save](#)

4th Floor, 121 St. Stephen's Green, Dublin 2. Tel: 00353 1 4028577  
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Tús Áite do  
Shábháilteacht 1 Othar  
Patient Safety First

# Contact Us

**NCCA** National Office of  
Clinical Audit



+353 1 4028577



[auditinfo@noca.ie](mailto:auditinfo@noca.ie)



[@noca\\_irl](https://twitter.com/noca_irl)



[www.noca.ie](http://www.noca.ie)

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