

An infection control intervention study: Using infection control as an entry point for improving the quality of delivery care and strengthening health systems in developing countries

Submission date 22/10/2010	Recruitment status No longer recruiting	☒ Prospectively registered ☐ Protocol
Registration date 25/11/2010	Overall study status Completed	☐ Statistical analysis plan ☒ Results
Last Edited 10/09/2014	Condition category Pregnancy and Childbirth	☐ Individual participant data

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

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Study information

Scientific Title

An infection control intervention study incorporating an interrupted time series with control:
Using infection control as an entry point for improving the quality of delivery care and strengthening health systems in developing countries

Study objectives

The multifaceted strategy infection control package will result in the formulation and implementation of locally achievable and sustainable action to reduce rates of wound, bloodstream and reproductive tract infections after childbirth.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Prof Rajeev Sharma, Convenor of the Ethics committee, Indian Institute of Management, Ahmadabad, 23/09/2010

Primary study design

Interventional

Study design

Interrupted time series with control

Study type(s)

Prevention

Health condition(s) or problem(s) studied

Maternal infections during childbirth

Interventions

Our intervention will have four core infection control elements, and a fifth element of appreciative inquiry as indicated below.

1. Improvement of surveillance systems for infection control
2. Operationalisation of infection control committees
3. Use of an audit, feedback, and problem solving mechanism
4. Development of locally relevant, standardised guidelines and protocols
5. Appreciative inquiry

Appreciative inquiry (AI) is a fairly new concept in infection control, and is the fundamental basis for our intervention. Appreciative inquiry hence brings together groups of people to identify problems and develop solutions, using self-reflective analysis and learning within a supportive environment. Sessions are held to include health facility personnel with diverse roles such as hospital cleaners, ambulance drivers, water engineer, nurses, doctors, administrators etc. Critical events are used in discussions which are non-threatening and non-punitive. Successes and problem-solving are the focus of discussions. In maternal health, it has been implemented at small scale to improve quality of emergency obstetric care in countries such as Bangladesh, India and Nepal. Although its effects were not evaluated formally in these settings, existing evidence suggest benefits of the approach.

We are planning to have 6 study sites of about 1000 deliveries per site, all in Gujarat state. They are a mix of government and private non profit health facilities. We hope to have 2 government and one PNP in each arm, control and intervention. The control facility will implement routine

government procedures for infection control and will not receive the intensive surveillance-infection control committee-appreciative enquiry inputs.

The duration of the intervention and follow up will be 6 months.

Intervention Type

Other

Phase

Not Applicable

Primary outcome(s)

1. Puerperal infections in women who deliver in study health facilities including

1.1. Bloodstream

1.2. Reproductive tract

1.3. Wound infections

Key secondary outcome(s)

1. Antibiotic use

2. Duration of hospital stay

Completion date

01/09/2012

Eligibility

Key inclusion criteria

1. Women who delivered in the intervention and control hospitals (Gujarat state), who subsequently contract (puerperal) infection of the genital tract

2. Women in whom infections of the genital tract are identified after delivery, up to 42 days post partum

3. Puerperal infections are defined as those specified in ICD-10 codes 085 and 086 (see annex 1):

3.1. Puerperal sepsis

3.2. Other puerperal infections

3.3. Infection of obstetric surgical wound

3.4. Other infection of genital tract following delivery

3.5. Urinary tract infection following delivery

3.6. Other genital tract infection following delivery

3.7. Pyrexia of unknown origin following delivery

3.8. Other specified puerperal infections

4. Any woman over 28 weeks gestation who delivers a baby (live or stillborn) in any of the control or intervention hospitals

5. Any woman over 28 weeks gestation who has delivered a baby (in any location be it in the community, a study site or a non-study hospital) who is admitted with the placenta undelivered

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Sex

Female

Key exclusion criteria

1. Any woman who delivers a baby (live or stillborn) less than 28 weeks gestation.
2. Miscarriage and abortion cases
Note: Often, these cases are seen in out-patients or admitted in a different ward and are classified as 'gynaecologic' cases and not 'obstetric' cases
3. Any woman admitted to the study site after delivery of the placenta

Date of first enrolment

01/01/2011

Date of final enrolment

01/09/2012

Locations**Countries of recruitment**

United Kingdom

Scotland

India

Study participating centre

Impact

Aberdeen

United Kingdom

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Sponsor information**Organisation**

John D and Catherine T MacArthur Foundation (USA)

ROR

<https://ror.org/00dxczh48>

Funder(s)

Funder type

Charity

Funder Name

John D and Catherine T MacArthur Foundation (USA) (Grant number GSS 09-94513-000)

Alternative Name(s)

MacArthur Foundation, John D. & Catherine T. MacArthur Foundation, The John D. and Catherine T. MacArthur Foundation, John D & Catherine T Macarthur Foundation, John D and Catherine T MacArthur Foundation, JDCTMF

Funding Body Type

Private sector organisation

Funding Body Subtype

Trusts, charities, foundations (both public and private)

Location

United States of America

Results and Publications

Individual participant data (IPD) sharing plan**IPD sharing plan summary****Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	30/01/2014		Yes	No