Early intervention in Ireland: the DETECT experience

Ms. Laoise Renwick & Mr Shane Hill
DETECT services
• Background to Early Intervention – Irish context
• Lead in
• DETECT service
• Results
• Discussion
• Background to Early Intervention – Irish context
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• DETECT service
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• Discussion
Psychosis in Perspective

- 800-1,200 new cases annually
- X 2 as common as insulin dependent diabetes
- X 20 as common as MS
Psychosis: 75,000 in Ireland
Schizophrenia: 34,000 people
Distribution of age at first admission for schizophrenia in males and females

Note the bimodal age at onset pattern for females.
(Adapted from Häfner et al. Br J Psychiatry 1993; 162: 316–22)
The Economic Cost of schizophrenia in Ireland: cost of illness

- The cost of Schizophrenia in Ireland was 461 million euro in 2006.
- Direct care was 118 million euro.
- Indirect costs was 343 million euro.
- Lost productivity and premature mortality was 277 million euro.
- Informal care borne by families was 44 million euro.

Carah Behan, Dr Brendan Kennelly and Prof. O Callaghan
First episode studies
Dublin First Episode Psychosis Study 1995-1999

- Urban catchment area (165,000)
- All first onset psychosis
- Age 12yrs+
- Comprehensive assessments, SCID etc
- N = 171
Dublin First Episode Psychosis Study 1995-1999

- Causes – O/C, infections
- Childhood development
- Pattern of referral
- Course of the illness - 6m, 4yr, 8 yr, 12yr, 18yr
- Hospitalisation
- Predictors of outcome
- Ascertainment rate 32.3/100,000 for all psychosis and 19.5/100,000 schizophrenia
Baseline Assessments

- Demographics
- Diagnosis - SCID-I
- Functioning - GAF
- Symptomatology - PANSS
- Depression – CDSS
- Quality of Life - QLS
- Neurology CNE + NES
- Movement disorders & side effects - AIMS, SAS, Barnes
Baseline Assessments

- Insight – SUMD, Birchwood
- Attitude to medication – DAI
- Adherence to medication – Compliance
- Axis II - SCID-II
- Family interview - DUP - Beiser
- Premorbid adjustment - PSA
- Obstetric complications & maternal infections
Diagnoses (N=171)

- Schizophrenia/niform: 59%
- Bipolar disorder: 15%
- Delusional: 8%
- Substance induced: 7%
- Depression: 6%
- Organic: 3%
- NOS: 2%

Legend:
- Schizophrenia/niform
- Bipolar disorder
- Delusional
- Substance induced
- Depression
- Organic
- NOS
Duration of untreated psychosis

First episode studies
Timeline – Early Psychosis

First Noticeable Signs

Onset of Psychosis
Start of critical Period

First opportunity to be referred

Receipt of effective Tx

End of Critical Period

3 – 5 years

DUI

DUP
Duration of Untreated Psychosis

- Mean DUP 17.9 months, median 5
  Clarke et al, 2006, Br. J Psych

- Longer DUP, poorer QOL at first presentation
  Browne et al, 2000, Br. J Psych

- Longer DUP, associated with SI and SA
  - 22% had considered suicide
  - 10% serious attempt
  Clarke et al, 2006, Scz Res
Impact: correlation with length of time untreated

- Never suicidal: 13 months
- Contemplated: 22.5 months
- Serious attempt: 39.9 months

$P < 0.004$ (Clarke et al, 2006)
How did Dublin compare?
"In hindsight, the illness was with me on a minor level for a long time, hearing people passing on the street, in the next room or walking by the house, all talking maliciously about me. I was convinced that random people and half acquaintances were running me down. This went on for almost 5 years before what I'll call "the big one"."
Duration of untreated psychosis
First episode studies
Follow up studies
4 year follow up

• 129 of 166 (78%) consented to face to face interview

• Most improved, 43% remission

• DUP predicted symptomatology, remission and outcome
Beyond the critical period: longitudinal study of 8-year outcome in first-episode non-affective psychosis

Niall Crumlish, Peter Whitty, Mary Clarke, Stephen Browne, Moayyad Kamali, Maurice Gervin, Orfhlaith McTigue, Anthony Kinsella, John L. Waddington, Conall Larkin and Eadbhard O’Callaghan

Background
The critical period hypothesis proposes that deterioration occurs aggressively during the early years of psychosis, with relative stability subsequently. Thus, interventions that shorten the duration of untreated psychosis (DUP) and arrest early deterioration may have long-term benefits.

Aims
To test the critical period hypothesis by determining whether outcome in non-affective psychosis stabilises beyond the critical period and whether DUP correlates with 8-year outcome; to determine whether duration of untreated illness (DUI) has any independent effect on outcome.

Method
We recruited 118 people consecutively referred with first-episode psychosis to a prospective, naturalistic cohort study.

Results
Negative and disorganised symptoms improved between 4 and 8 years. Duration of untreated psychosis predicted remission, positive symptoms and social functioning at 8 years. Continuing functional recovery between 4 and 8 years was predicted by DUI.

Conclusions
These results provide qualified support for the critical period hypothesis. The critical period could be extended to include the prodrome as well as early psychosis.

Declaration of interest
None. Funded by the Stanley Medical Research Institute.
Delays and Outcome at 8 years
8 Years

- 49.3% in remission

- DUP predicted remission, positive symptoms and social functioning
  - DUP < 1 month: 82% remission
  - DUP > 1 year: 42.9% remission

- DUI predicted negative symptoms and social functioning
12 year follow up

- DUP predicted remission, pos sx, neg sx, poor function
- 40 % independent accommodation
- 38 % employed
All Cause Mortality in First Episode Psychosis 12 Years After Presentation—South Dublin

Average age 29 years

100%

Time 0 8 Yr 12 Yr
0 2.30% 9.90%

Average age 41 years

90.10%

Alive

Dead

Average age

41 years

100%
Duration of untreated psychosis
First episode studies
Follow up studies
DETECT
• Background to Early Intervention – Irish context
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• DETECT service
• Results
• Discussion
What is the impact of delays?

Longer DUP associated

• ↑ severity of symptoms
• ↑ likelihood of hospitalisation
• ↑ self harm, suicide attempt
• Greater loss of functioning
• Slower recovery
• Significant losses in quality of life
• More likely to have lost occupational roles

• Is longer DUP a characteristic of presentations that commonly lead to a poorer prognosis?

– OR

• Is DUP a potentially modifiable factor that is independently associated with outcome?
Association Between Duration of Untreated Psychosis and Outcome in Cohorts of First-Episode Patients

A Systematic Review

Max Marshall, MD; Shon Lewis, MD; Austin Lockwood, RMN; Richard Drake, PhD; Peter Jones, PhD; Tim Croudace, PhD

4,490 people with psychosis

The average delay from first symptom to effective treatment 27 months
Meta-Analyses…

1. Prolonged DUP assoc. with lower levels of symptomatic & functional recovery in first-episode

2. DUP assoc. with severity of negative symptoms

### Where can you intervene

<table>
<thead>
<tr>
<th>Heart Disease</th>
<th>Psychosis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non Modifiable factors</strong></td>
<td><strong>Modifiable factors</strong></td>
</tr>
<tr>
<td>Genetic Age</td>
<td>Smoking</td>
</tr>
<tr>
<td></td>
<td>Exercise</td>
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<tr>
<td></td>
<td>Diet</td>
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<td></td>
<td>Cholesterol</td>
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<td></td>
<td>Alcohol</td>
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<td></td>
<td>BMI</td>
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</table>
## Reducing Delays

<table>
<thead>
<tr>
<th>Country</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>18 months</td>
<td>11 months</td>
</tr>
<tr>
<td>Norway</td>
<td>29 months</td>
<td>6 months</td>
</tr>
<tr>
<td>Canada</td>
<td>16 months</td>
<td>8 months</td>
</tr>
<tr>
<td>Singapore</td>
<td>12 months</td>
<td>4 months</td>
</tr>
</tbody>
</table>

In 1996, the duration of untreated psychosis in Rogaland county was 118 weeks.

Now it is 26

• Background to Early Intervention – Irish context
• Lead in
• DETECT service
• Results
• Discussion
Early Intervention in Ireland

• Based on International and Irish research

• Consortium of service providers and voluntary sector parties developed proposal
The Consortium

- Dr. Siobhan Barry Convenor
- Dr. Justin Brophy Consultant – Newcastle Service
- Dr. Mary Darby Consultant – SVUH
- Dr. Abbie Lane Consultant SJOG Hospital
- Ms. Elizabeth Lawlor Senior Psychologist CMS
- Prof. Fiona McNicholas Consultant CAMHS
- Prof. E.O Callaghan Consultant CMS/Chair MHR
- Dr. Freda O Connell Clinical Director – Vergemont
- Mr Jim Ryan Director Mental Health ECAHB
- Mr. John Saunders Director Schizophrenia Ireland
- Mr. Niall Turner Occupational Therapist
Role Models for DETECT

- EPPIC – Melbourne
- PEPP – Montreal
- TIPPS – Norway
- LEO – London
Models of Service Delivery

• Specialist Teams

• Dispersed or CMHT model

• Hub and Spoke Model

  – Sainsbury Centre for Mental Health (2003)
Funding Opportunities

- Research Grants
  1. HRB
  2. SJOG research grants 2004
- Outcome
  1. Declined
  2. Awarded

The DELTA Project
Detection, Education & Local Team Assessment

MINI IRISH PILOT
FEBRUARY 2005
172,000
Autumn 2005

- HSE offer 10% of funding outlined in proposal to expand DELTA into the East Coast Area
  (pop 375,0000)

Launched 14th Feb 2006
Dublin and East Treatment and Early Care Team

EARLY INTERVENTION IN PSYCHOSIS
DETECT : 375,000  9.5% of Population

425 GPs

Cluain Mhuire, Wicklow, Elm Mount and St. John of God’s
Dublin and East Treatment and Early Care Team

Team – 8.5 WTE

1. Project Manager
2. Consultant Psychiatrist 0.5
3. 4 Clinical Fellows: 3 doctors and 1 CNS
4. Psychologist 0.5
5. Social Worker 0.5
6. Occupational Therapist
7. Clinical Nurse Specialist 0.5
8. Administrator 0.5
What is our aim?

• Provide the first early intervention service for those with psychosis in Ireland.

• Evaluate the service

• If effective, help to roll out services nationwide
Model of Early Intervention

Early Recognition of Psychosis → Rapid Assessment of Psychosis

Rapid Assessment of Psychosis → Specialised Treatment Package for early phase of Psychosis
Treatment delays in Psychosis

= 

Help Seeking Delays

+ 

Health System Delays
How to tackle delays

Help Seeking Delay
- Stigma reduction campaign
- Psychosis awareness campaign
- Improve access

System Delay
- GP education
- A & E education
- Professional education
- Rapid assessment
Reasons for Help Seeking Delay

- Poor understanding
- Lack of awareness/insight
- Denial & fear
- Life implications
- Stigma
- First degree relative – longer delay
First episode psychosis and the trail to secondary care: help-seeking and health-system delays

Eadbhard O’Callaghan · Niall Turner · Laoise Renwick · Deirdre Jackson · Marie Sutton · Sharon D. Foley · Stephen McWilliams · Caragh Behan · Alastair Fetherstone · Anthony Kinsella

Received: 23 December 2008/Accepted: 1 June 2009/Published online: 4 July 2009
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Abstract

Background People experience delays in receiving effective treatment for many illnesses including psychosis. These delays have adverse consequences in heart disease and cancer, and their causes have been the subject of much research. In the context of psychosis, the problem has become the subject of increasing concern in recent years for a number of reasons. Not surprisingly, the identification of the reasons for these delays is crucial in the development of pathways to secondary care for people with psychosis. A research field that has received increasing attention in recent years is the study of the help-seeking process. The study of help-seeking is complex and may be affected by a variety of individual, social, and cultural factors.

Results The final sample consisted of 142 (88M, 54F) cases after those with psychosis due to a general medical condition were excluded.
Help-seeking

- Family initiated contact 33%
- Those who did not seek help were more likely to have a family member affected by mental illness
Public Awareness Campaign

www.detect.ie
www.deltaproject.ie
Help seeking delays

Educational Programme

• Leaflet delivered households within the 3 catchment areas - Oct 2010

• The early warning signs of psychosis and how to seek help
Help seeking delays

Educational Programme – General Public

• TV Soap Opera – Fair City 600,000 viewers in a population of 4 Million
• Character gradually develops symptoms of schizophrenia
• Treated and recovered – survey (n=993) – 6 months later

• Viewers - less likely to distance themselves from those with schizophrenia, less likely to view them as a risk and more optimistic about outcome
What is the DELTA Project?

Health Professionals are continually striving to improve services for people with mental health difficulties and their families. A new service has been established in South East Dublin, Ireland working to improve outcomes for people who experience psychosis for the first time and their families.

DELTA stands for Detection, Education and Local Team Assessment and began operating in February 2004. It can take up to two years for people with psychosis to receive effective treatment. The DELTA Project seeks to address this and reduce the amount of time a person experiencing their first episode of psychosis spends unwell without treatment. As the name suggests, the DELTA Project has two components, education and assessment.

Firstly, DELTA will provide rapid, holistic assessments to those experiencing their first episode of psychosis and their families. Secondly, we will provide education and information about psychosis, what it is, how to recognise it and how to get help. Our aim is to reach as many people as possible but we will also be delivering information and education to targeted audiences that either deal with people with psychosis or that are likely to be affected by psychosis.

This website is part of the educational campaign and is intended as a source of information for public and professional interest. The information provided within should be used sensitively and carefully, it is not for diagnostic purposes. If you
First Fortnight
Challenging Mental Health Prejudice
Through Creative Arts

First Fortnight in assoc. with DETECT present

One Man, Many Voices

@ FilmBase,
Curved Street,
Temple Bar

Sat 7 Jan 2.30pm
Tickets €5
Tackling Health System Delays

80% find DETECT service very/extremely useful
System delay - Phases of Psychosis

• May develop suddenly or gradually
• Different phases:
  Premorbid changes
  Early warning signs
  Onset of frank psychotic symptoms
Early signs – Difficult to identify

• Loss of concentration
• Depression
• Changes in behaviour, especially social withdrawal
• Suspiciousness
• Changes in patterns of self care
• Lack of interest
• Strange ideas
• Irritability
• Self harm/Suicide
Primary and Secondary Care In Region

- 345 GPs
- 3 General Hospitals
- 2 Psychiatric Hospitals
- 15 public consultant psychiatrists and associated teams
- 6 private consultant psychiatrists
- > 300 community/voluntary organisations
Educational Programme - General Practitioners, ED Staff & Psychiatric Registrars

- Continuous Medical educational groups & GP trainees
- Articles in GP Journals and Newspapers
- Newsletters & Laminate sent to all GPs
- Educational Sessions for ED Staff
- Presentations at academic sessions
Health system delays

Educational Programme – Other Professionals

Member of DETECT Team liaises:
• Secondary Level Teachers
• Police/ Probation Services
• Counsellors
• Social Workers
• Helpline Staff
• Addiction Services
• Primary Care Teams
• Youth Workers
• Over 2,000 professionals
Local Community Campaign

Attendances at community organisation presentations

Total = 906 at 67 presentations
Early Detection of Psychosis

Attendance at DETECT workshops by Health Professionals

Total Attendances > 600
RAPID ASSESSMENT

One assessor per area

72 hours

Assessment includes: Structured clinical interview, SANS, SAPS, Calgary Depression Scale, Premorbid adjustment, DUP, Quality of life, Occupational and social functioning, Burden of care
CMHT/EI Service Provision

- Ensure minimum delay
- Rapid assessment
- Phase Specific Interventions

- In-pt/Out-pt care
- Pharmacotherapy
- CPN service

Person

Detect

CMHT
Clinician Ax

- SCID
- SANS
- SAPS
- Calgary
- Functioning
- QoL
- Premorbid functioning
- Beiser Scale (Delays)

Self Reports

- Insight Scale
- Drug attitude inventory
Assessment

- Clinical meeting every week
- Discuss the assessments & diagnosis
- Feedback from interventions
- Access data base – direct entry
Referrals and Cases

- **Total No. of Referrals:** 748
- **Total No. of Cases:** 345
Diagnostic breakdown of cases with psychosis

- Schizophrenia/phreniform: 41%
- Bipolar: 12%
- Depression: 12%
- Substance induced: 10%
- Del/gmc/brief: 25%
Interventions

• Offered to everyone
• Standardised
• Specifically for FEP
• “Assertive” engagement strategies, optimistic attitude
• Dedicated team member
  – 0.5 Psychologist
  – 0.5 Social Worker
  – 1 Occupational Therapist
Phase specific interventions

- Cognitive Behavioural Therapy for FEP
  - 12 week group programme
- Family Education and support programme
  - 6 week group course
- Occupational Therapy Service
  - Individual, addressing occupational and social disabilities associated with psychosis
Why CBT for Psychosis?

• ‘People feel disturbed not by things but by the views they take of them’
  Epictetus – first century philosopher

• Depression & Anxiety 30-75%

• High levels of on-going symptomatology
CBT

Biopsychosocial model of causation

Strategies to deal with anxiety and depression

Maladaptive behaviours – managing the symptoms

Metacognitive approaches – cognitive errors and problem solving biases
Group Intervention

• Normalisation, social functioning & challenging beliefs are seen as core strategies
• Destigmatise the individual’s view of their own illness
• Empowering the person through work on anxiety and self-esteem
• Disempowering the symptoms through cognitive skills and behavioural techniques.
12 Modules
What is Psychosis?
What is CBT?

- Psychoeducation
- Stress-Vulnerability Model
- Physical, Behavioural and Cognitive aspects of stress
- Cognitive understanding of psychosis (Morrison, Garety)
- Metacognitive training
- CBT Coping strategies
- Assertiveness
- Self Esteem
- Goal Setting

Relapse Prevention
- Acceptance & change. Nurturing
- Substance misuse
- Social Support, social anxiety
- Medication
- Relapse Prevention (EWS)
References


FAMILY EDUCATION
Current course

**Individual family meeting**
- Address particular family issues
- Discuss how course might help

**Session one**
- Familiarisation with language of mental health
- Overview of psychosis, diagnosis, treatments

**Session two**
- Biological background, questions on medication answered.

**Session three** –
- Psychological approaches, discussion of CBT for psychosis,
- How cognitive difficulties and negative symptoms can affect patient and family
Current course

Session four
• The experience of psychosis,
• Presentation by service user,
• Discussion on service user reports.
• Making best use of Help agencies.

Session five
• Dealing with lack of insight,
• Motivational strategies to encourage compliance,
• Adjusting to an ill family member,
• Having expectations and setting limits.

Session six
• Being aware of relapse, forward planning
• Online course
Feedback

Families – generally positive e.g. feel less confused, more able to understand professionals. Some of the strategies helpful and lead to less friction in family relations. Feel better about services and professionals.

Professionals – have reported time saving in explaining things to families who have done course and more positive views of services among these families.

Patients – some reports of family members who have been on course being better able to understand their illness.
OCCUPATIONAL THERAPY
Occupational Therapy: Evidence Based

- Roles lost; maladaptive habits formed
- Difficulty with strategic planning re. employment
- Health Related Outcomes: Meaningful occupation linked to improved health
- Psychosocial Interventions as a crucial component of relapse prevention
OT in Detect

- Blanket referral procedure
- Individual sessions
- Assessment – subjective, objective, collateral
- Model of Human Occupation framework
  - Self-Care, Productivity, Leisure - Roles
  - Functioning - Environment
- Flexible depending on need
- Strength Focused
Interventions

• **Goal setting** e.g. increasing daily structure, improving concentration, establishing social support

• **Individual psychosocial sessions** e.g. relaxation, money management, work-related skills

• **Information and advice provision** e.g. training and employment opportunities and supports

• **Referral** on to relevant community resources
Journey through EI Service

Referral Suspected Psychosis

Contacted & seen by DETECT within 72hrs

Structured Clinical Interview

CASES: Reports Interventions

Case ARMS Not Case

Clinical Meeting

CBT

OT

Carer Education
• Background to Early Intervention – Irish context
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Treatment Delays Reduced

![Graph showing treatment delays reduced over time](image-url)
Duration of untreated psychosis
% treated as an outpatient at first presentation
Median symptom scores over time
Suicide Attempts Before Treatment Reduced

- 1995-1999 FEP - 10%
- 2006-2010 DETECT - 5%
Positive symptoms

Presentation 1 year

- All
- DUP>6months
- DUP<6months

Graph showing the decrease in positive symptoms over time for different groups.
Negative symptoms

Presentation 1 year

DUP > 6 months
DUP < 6 months

All

Diagram shows the decrease in negative symptoms over 1 year for different groups: All, DUP > 6 months, and DUP < 6 months.
Depressive symptoms

Presentation
1 year
All
DUP>6months
DUP<6months
Work outcome

- Employed 100%
- Employed 75%
- Employed 50%
- Employed 25%
- No employment

Percentage distribution over different employment categories.
**Social outcome**

![Bar chart showing social outcomes]

- **Socialises every week**: 60%
- **Socialise 2 per month**: 10%
- **Socialise 1 per month**: 5%
- **Socialise through work**: 5%
- **No social life**: 5%
Testimonies

• “Very satisfied with the service. Pts seen quickly and we see them in out patients, sometimes DETECT report is already there, very helpful.”  GP

• “Yes did not know that time to treatment was so important”  GP

• “I found the sessions on how to interact with someone during a psychotic episode, relapse prevention and preparation in the case of relapse particularly useful”  Relative

• “I never realized how many opportunities and jobs are actually out there, I would have given up by now”.  Service user
Changes for someone with FEP in our area…

- Those in close contact with young people more aware of psychosis and early signs, know how to access services
- GP/A&E now more alert for signs of psychosis and if present understand why and how to refer quickly
- Referrals seen within 72 hrs in their home if possible
- Standardised diagnostic and assessment protocol by trained experienced clinicians
- Treatment commenced immediately if psychosis present
- Medical, social, occupational and psychological needs are addressed
- Families receive education and support
<table>
<thead>
<tr>
<th>Comparison</th>
<th>Pre-DETECT</th>
<th>DETECT</th>
<th>1 year follow up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admitted</td>
<td>84%</td>
<td>63%</td>
<td>28%</td>
</tr>
<tr>
<td>Involuntary admission</td>
<td>21%</td>
<td>20%</td>
<td>-</td>
</tr>
<tr>
<td>Positive symptoms</td>
<td>21/49</td>
<td>17/95</td>
<td>4/95</td>
</tr>
<tr>
<td>Negative Symptoms</td>
<td>31/49</td>
<td>15/155</td>
<td>4/155</td>
</tr>
<tr>
<td>Functioning</td>
<td>23</td>
<td>40</td>
<td>68</td>
</tr>
</tbody>
</table>
• Quality of life – Laoise Renwick – HRB
• Substance misuse – Kevin Madigan – HRB
• Supported employment – MHC
• Economics – HRB
• Suicide – HRB
• 8 yr follow up - SJOG
• Physical health – bit of everyone
Has this been more than just DETECT?

“If I had to reduce my message … to just a few words, I’d say it all had to do with reducing variation.”

W Edwards Deming
If we were starting again....

- Experience of EI in one setting – local adaptations essential
- Engagement rates
- Measures – small amounts well
- Individual work
- Extended interventions
- Value of collaboration with other centres
Possible outcome variables for EIP services

- DUP
- Admission rates
- Admission under MHA
- Engagement
- Retention
- % Families involved
- Suicide attempts
- Readmission
- % employed
Acknowledgements

Individuals and their families
Hospitaller Order of St John of God

HSE

Partner agencies

CMFC management

GPs and CMHTs

Volunteers

DETECT acknowledges

DETECT MDT team
Acknowledgements

First episode group
Dr Stephen Browne
Dr Maurice Gervin
Dr Orflaith Mc Tigue
Dr Moayyad Kamali
Dr Peter Whitty
Dr Niall Crumlish
Dr Michelle Hill
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SHINE Blackrock
Volunteers
Kevin Madigan
Dr Stephen Mc Williams
Dr Brian O’Donoghue
Tara O’Leary
Sarah O’Rourke
Roisin O’Regan
Dr Liz Owens
Dr Nicholas Ramperti
Laoise Renwick
Niall Turner
Marie Sutton
Acknowledgements
Professor Eadbhard O’Callaghan

Start by doing what's necessary; then do what's possible; and suddenly you are doing the impossible.