eLIXIR - early-LIfe data cross-LInkage in Research

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Rationale for eLIXIR

- The eLIXIR resource will enable researchers to interrogate clinical information and blood samples from across King's Health Partners and national sources for research purposes.
- It has been designed to support research into Women's Health, Paediatrics, Mental Health, Implementation Science and Public Health.
- Key aim for eLIXIR is to create a unique core infrastructure linking routine clinical records and patient samples that will provide a step change in UK research capability in the life course of physical and mental health disorders.

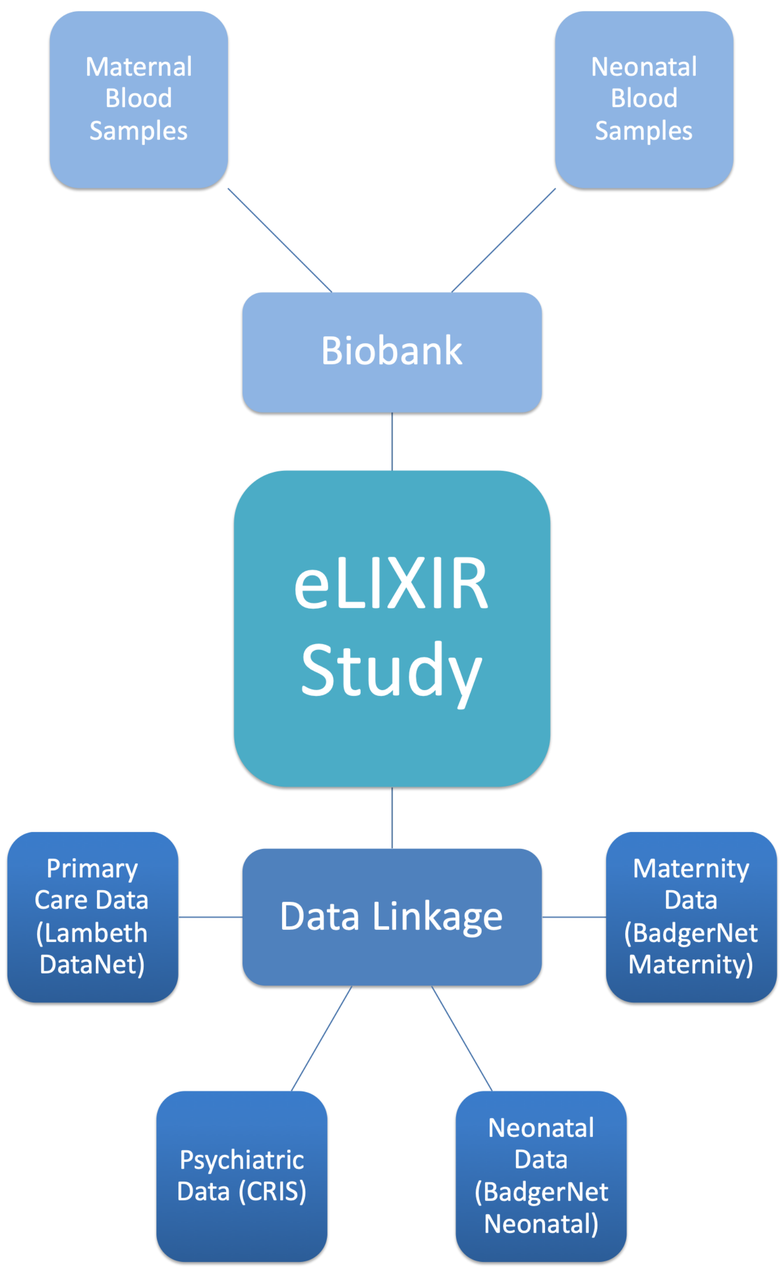
MRC Medical Research Council

eLIXIR Platform Components

Phase 0
- Linkage between BadgerNet Maternity and the existing CRIS infrastructure.
- Refresh the pre-existing linkage between BadgerNet Neonatal and the CRIS database

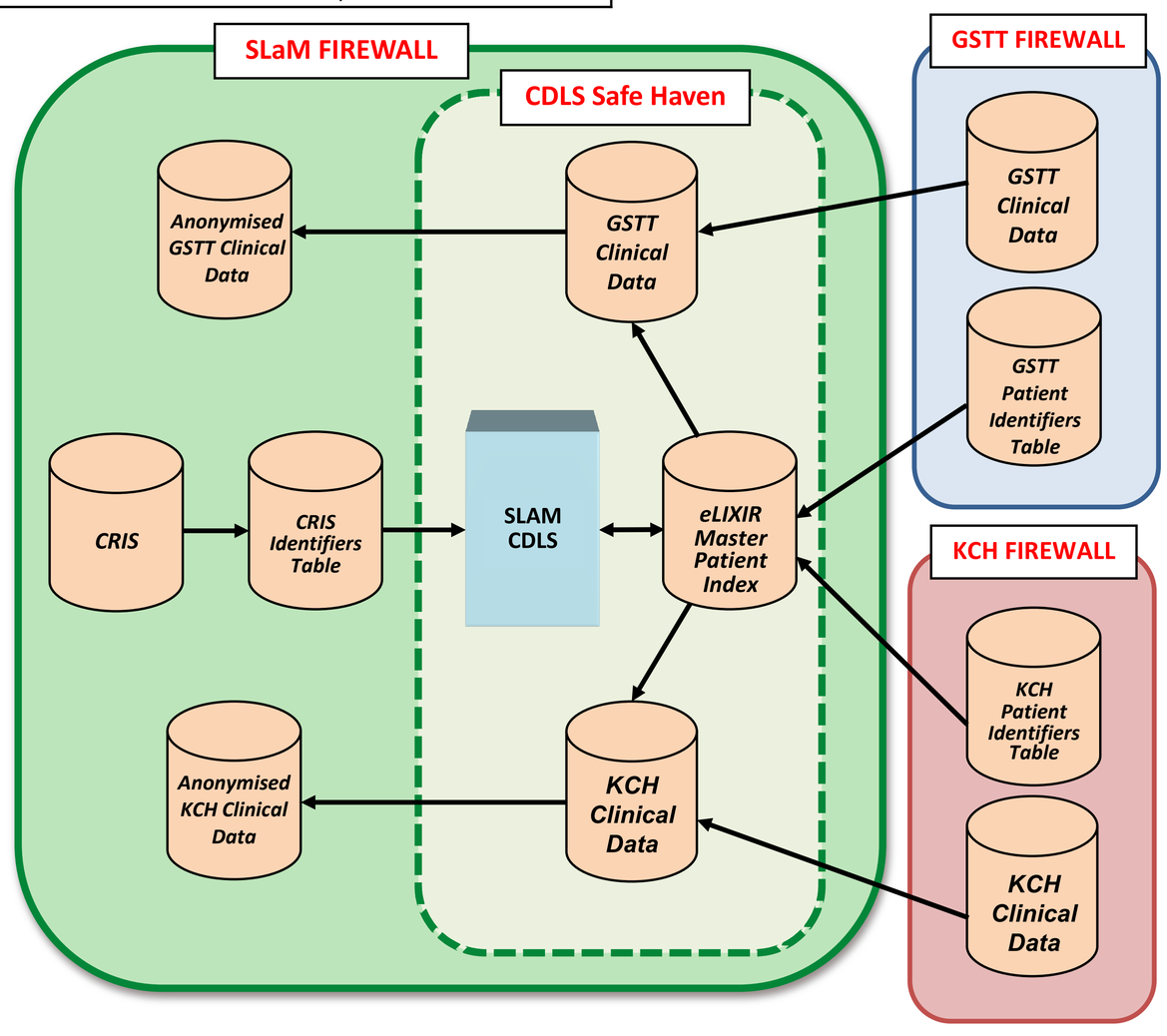
Phase I
- Development of core eLIXIR dataset
- Linkage between BadgerNet Maternity and BadgerNet Neonatal with CRIS
- Protocol development for the addition of further datasets and refreshes of the data

Phase II
- Linkage between the eLIXIR dataset and the Lambeth DataNet (GP Data)



Abbreviations:

CDLS	SLaM's Clinical Data Linkage Service
CRIS	Clinical Records Interactive Search tool
KCH	King's College Hospital NHS Foundation Trust
GSTT	Guy's and St Thomas' NHS Foundation Trust
SLaM	South London and Maudsley NHS Foundation Trust



Step 1: CDLS create ***CRIS Identifiers Table*** which includes first name, last name, gender, date of birth, current and historic addresses, and BRCID for all patients in CRIS.

Step 2: KCH and GSTT create ***Patient Identifiers Table*** which includes first name, last name, sex, date of birth, current and historic addresses, and hospital number for relevant patients and send these to the SLaM CDLS via secure transfer.

Step 3: KCH and GSTT send clinical data minus all PII (except hospital number) separately via secure transfer.

Step 4: The CDLS link the ***CRIS Identifiers Table*** with the KCH and GSTT ***Patient Identifiers Tables***. An ***eLIXIR Master Patient Index*** is created. Unique records are assigned an eLIXIR ID.

Step 5: The CDLS replace the hospital number with the eLIXIR ID in the KCH and GSTT clinical data to create anonymised clinical datasets.

Step 6: Researchers apply for approval from the eLIXIR Oversight Committee to use linked eLIXIR data.

Step 7: eLIXIR informatician compiles a linked dataset based on approved project.

CLINICAL RECORD INTERACTIVE SEARCH

NHS South London and Maudsley NHS Foundation Trust