

Sudden Unexpected Death in Infancy and Childhood MOU between HM Senior Coroner for Surrey and Surrey CDOP

This memorandum of understanding has been made between HM Senior Coroner for Surrey and Surrey CDOP and it applies to the routine taking of samples where the circumstances of the unexpected death of an infant or child do not give rise to any suspicions or concerns that abuse or neglect may have contributed to the death. If there is any suggestion of neglect or abuse, the professionals must contact the Coroner and the police immediately and before any samples are taken.¹ Where there is any doubt about the appropriateness of a course of action, the Coroner should be consulted first via the on-call Coroner's Officer.

Routine suggested samples to be taken immediately after sudden unexpected deaths in infancy and childhood – 'The Kennedy Samples'²

Save where there is a criminal investigation, such samples will fall under the jurisdiction of HM Coroner, and hence there must be communication with the coroner's office. Before the infant is certified to have died and/or during the resuscitation period, various samples may have been collected. These samples should be clearly documented, the coroner's officer informed, the samples secured and the results forwarded to the pathologist as soon as possible. The samples listed in the table at 'Appendix A' should be taken in all SUDI cases.

In unexpected deaths in older children, the appropriate clinical samples will be guided by the circumstances of the death and the clinical findings.

1a: Taking the Kennedy Samples

- Samples must be taken with all due care as soon as is reasonably practicable after death.
- In taking samples areas of the body where there appear to be any signs of bruising must be avoided.
- A single attempt at a femoral or cardiac aspiration should be made by a competent practitioner. Repeated attempts should be avoided as they may compromise the integrity of the cardiac anatomy.

1b: Additional samples to be considered after discussion with consultant paediatrician

- Skin biopsy for fibroblast culture in all cases of suspected metabolic disease.
- Muscle biopsy if history is suggestive of mitochondrial disorder.
- In suspected carbon monoxide poisoning, blood sample for carboxyhaemoglobin.

¹ In Surrey, a coroner's officer will be on duty at all times. During office hours please call 01483-637300. Out of hours dial 101 and ask for the on-call Coroner's Officer.

² 'Sudden unexpected death in infancy and childhood' (2nd edition November 2016) The Baroness Helena Kennedy QC.

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1c: Evidential considerations

- Ensure the coroner has given permission to take samples.
- All samples taken must be documented and labeled to ensure there is an unbroken 'chain of evidence', using an appropriate 'chain of evidence' pro forma.
- This may mean handing samples to a police officer directly, or having the laboratory technician sign upon receiving them in the laboratory.
- Ensure that samples given to the police or coroner's officer are signed for.
- Record the sites from which all samples were taken.

Holding their Child and Mementos for the Family:

If the death is suspicious, the coroner and the police should be informed immediately and in those circumstances access to the child by the parents or loved ones, prior to a post mortem examination, MUST NOT be permitted and tubes and lines MUST NOT be removed.

If the cause of death is unknown or unnatural but not thought to be suspicious then parents or loved ones of the child who wish to hold their child prior to a post mortem examination, may do so provided the following guidance is followed.

1. Those attending or holding the child must always be accompanied and observed by at least one member of medical staff (nurse grade or higher). The name and grade of the member of staff must be noted.
2. There is available an x-ray that clearly shows the tube/s in place:
 - a. that was taken no more than 24 hours prior to the child's death, or
 - b. that was taken immediately after the child's death.
3. Lines may be removed, but the entry cannulas must remain in place; the entry cannulas themselves MUST NOT be removed. All lines and bags removed and any syringes/medication vials used MUST BE retained.
4. A hair sample may be taken by a member of the medical staff, whose name and grade must be noted.
5. A hand and / or footprint may be taken by a member of the medical staff, whose name and grade must be noted.

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Appendix A

Kennedy Samples

Sample	Send to	Handling	Test
Blood (serum) 1–2 ml	Clinical chemistry	Spin, store serum at – 20°C	Toxicology if indicated*
Blood cultures – aerobic and anaerobic 1 ml	Microbiology**	If insufficient blood, aerobic only	Culture and sensitivity
Blood from Guthrie card	Clinical chemistry	Normal (fill in card; do not put into plastic bag)	Inherited metabolic diseases
Blood (lithium heparin) 1–2 ml	Cytogenetics	Normal – keep un-separated	Genetic testing (if indicated)
Cerebrospinal fluid (CSF)	Microbiology***	Normal	Microscopy, culture and sensitivity
Nasopharyngeal aspirate	Virology#	Normal	Nucleic acid amplification techniques**
Nasopharyngeal aspirate	Microbiology	Normal	Culture and sensitivity
Swabs from any identifiable lesions	Microbiology	Normal	Culture and sensitivity
Urine (if available)	Clinical chemistry	Spin, store supernatant at – 20°C	Toxicology if indicated, inherited metabolic diseases

Notes:

* Toxicology has a low yield in routine practice, and its use and coverage of substances varies according to coronial practice. Each case should be assessed individually.

** Appropriate interpretation of microbiological and virological results after SUDI remains difficult, with significant variation by group and individual.

*** If indicated based on clinical history or examination.

Samples must be sent to an appropriate virological laboratory.