

Clinical Standard Operating Procedure (SOP)

# CYTOMEGALOVIRUS (CMV) SAMPLE STORAGE FOR PRETERM BABIES ADMITTED TO NICU

<b>SETTING</b>	St Michael's Hospital, Neonatal Intensive Care Unit (NICU).
<b>FOR STAFF</b>	Neonatologists, Doctors and NICU Nurses.
<b>PATIENTS</b>	Infants admitted <30 weeks gestation.

## Background

We know that approximately 90% of babies infected in utero with Cytomegalovirus (CMV) are asymptomatic, however a proportion of these go on to have hearing and developmental issues later in childhood. The prognosis for babies with postnatally acquired infections is better. It is therefore important to distinguish between congenital and postnatally acquired infection to ensure appropriate management, and this can only be done accurately during the first three weeks of life. In neonates diagnosed with CMV after birth, but who were not tested during this initial three week period, it can be difficult to determine whether the infection was congenital or acquired.

Once a preterm or term baby has developed a clinical suspicion for a CMV infection and has subsequently tested positive, consequent management will depend on the timing of the infection. Perinatal infections as opposed to postnatal infections will require different lengths of treatment and can be associated with different outcomes. An easy way to investigate the timing of a CMV infection would be to test the admission urine and oral swab sample. This can significantly help with the optimisation of antiviral treatment – if required.

## Recommendation

In order to address this issue, we recommend taking a urine and oral swab sample at the time of admission from every preterm baby <30 weeks gestation admitted to the Neonatal Unit. The samples should be requested on the Ice system as "*congenital CMV storage sample*" and sent to Virology. Two labels will print; plain universal sample for the urine sample and the second oral swab sample. The samples will be stored and only tested if a clinical question arises. In this way, we should be able to overcome the diagnostic uncertainty sometimes faced. These samples will be discarded after six months.

## Procedural roles

The medical team caring for the baby should print off *congenital cmv storage* sample labels and give to the nurse caring for the patient.

The nurse caring for the baby on admission should obtain the samples as soon as possible. If this isn't possible during their shift then this should be handed over to the nurse caring for the baby on the next shift. Only one of each sample is required on admission and the urine sample does not need to be a clean catch. Once samples are obtained and sent to the laboratory, the NICU Newborn screening section should be completed on Philips system.

**Table A**

<b>REFERENCES</b>	
<b>RELATED DOCUMENTS AND PAGES</b>	[REDACTED]
<b>AUTHORISING BODY</b>	NICU Clinical Governance
<b>SAFETY</b>	None
<b>QUERIES AND CONTACT</b>	NICU Education team on ext [REDACTED] & Infectious Diseases team