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Date: 12 March 2004

To: All COSs
All DOMs and Ward Managers
All Doctors
NTE Cluster Hospitals

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Improved serum 17-hydroxyprogesterone assay service for diagnosis and management of congenital adrenal hyperplasia (CAH)

This is a reminder that starting from 1 March 2004, measurement of serum 17-hydroxyprogesterone for the diagnosis and management of congenital adrenal hyperplasia (CAH) patients has been performed by tandem mass spectrometry technology, replacing the previous radioimmunoassay.

Each request requires a 5-ml clotted blood sample. Other features of this new service are:

1. The new technology is specific and does not suffer from interference by structurally similar steroids present in serum samples.
2. The results are about 3 times lower than those of the previous radioimmunoassay.
3. Turnaround time of this new service is improved from 3-monthly to weekly reporting of results.

We have adopted the reference ranges from the UK Supra-Regional Assay Service provided by the University College London Hospital (see Appendix I). For the detection of late on-set CAH in patients, a 250-microgram short synacthen stimulation test, consisting of basal and 30-minute post stimulation samples, is recommended.

For any enquiries on further details of the improved 17-hydroxyprogesterone service, please contact our Duty Biochemist at 2632-2685 or 2632-2331, or page through PWH Operator at 2632-2211.

Thank you for your kind attention.

Sincerely,



Prof CWK Lam

Appendix I

Reference Ranges for serum 17-hydroxyprogesterone

	Basal 17OHP (nmol/L)	17OHP at 30 min post synacthen (nmol/L)
Normal neonate (> 2 days)	<8	
Normal child 1-6 years	<3	<8
Normal child 6-10 years	<5	<10
Patient with classical CAH due to CYP 21 defect	>100	>>200
Patient with non-classical CAH	5-200	60-800
Heterozygote for classical CAH	<10	5-50
Normal adult male	1.2-5	3-10
Normal adult female (follicular)	0.6-4	2-8
Normal adult female (luteal)	1-6	2-10