

ALLTogether; Sampling during PEG-asparaginase treatment for patients with Down syndrome (all ages).

Includes:

- Minimal sampling (trough levels on infusions days)
- Peak levels and toxicity (A2G substudy); minimum of sampling is indicated, but peak levels may be taken on *all* infusions days. Samples must be taken within one hour after infusion termination (*study only for i.v. administrations*).

No colour = no sampling

Hepatotoxicity (bilirubin, TG, ALT): x=sampling in relation to the study “Peak levels and toxicity”, (x)=recommended extra sampling. It is also recommended to take liver test at the beginning of maintenance as part of this study.

The enzyme activity measurements at the correct time-points after PEG-asparaginase infusion are essential for the recommendations of the subsequent dosing.

	Sampling day											
ALL PATIENTS WITH DOWN SYNDROME	4 inf. day	11	18 inf. day	32*								
Peak levels Hepatotoxicity	x		x	x								
SR	71 inf. day	78	85 inf. day	99	113							
Peak levels Hepatotoxicity	x		x	x	x							
IR	80 inf. day	87	94 inf. day	108	134 inf. day	141	148	183				
Peak levels Hepatotoxicity	x		x	x	x			x				
HR	51 inf. day	58	79 inf. day	86	108 inf. day	117	122 inf. day	136	165 inf. day	172	204 inf. day	211
Peak levels Hepatotoxicity		x		x		x		x		x		x

* If day 32 samples are not possible samples can be done day 29 instead

In case of treatment delays, samples should be taken ≤ 14 days after the last PEG-asparaginase dose in order to make any conclusions for treatment recommendations.

In case of allergic reaction:

If asparaginase is administered i.v. a sample must be taken immediately after the infusion is stopped, and an additional sample 1 and 7 days after.

If asparaginase is administered i.m. a sample must be taken 1 day after the administration of asparaginase, and an additional sample 2 and 7 days after administration.

After both i.v. and i.m. administration, we recommend an additional sample after 7 days to identify increased clearance.

Samples:

Register your patient in REDCap (redcap.au.dk) including details of the last dose and actual sample.

Sampling: 2 ml of plasma: (optimally divided in two tubes)

4 ml EDTA blood. After centrifugation 10-15 min. at 20°C, 2000 g. Aliquote plasma into two ml tubes - (i.e. 2ml Saarstedt ref. 72.694, or 1.8 ml NUNC cat. No363401). **Tubes must be labeled with date, name and date of birth., and Castor number**

Send samples as soon as possible by standard mail to:
Aarhus Universitetshospital
ATT: Derya Pero Ayyildiz Tlf +45 51223870
Børn og Unge Forskning. Indgang G8 –krydspunkt G211
Palle Juul-Jensens Boulevard 99
8200 Aarhus N. Denmark.

The treating centers must cover the shipment of samples by standard mail.
The samples will be analysed for free.

Recommendation for the subsequent treatment (continue PEG-asparaginase/change to Enrylaze (recombinant Erwinase asparaginase)/stop asparaginase treatment) will appear in REDCap before the next planned PEG-asparaginase dose. Questions regarding REDCap; please contact Derya Pero Ayyildiz (biomedical laboratory scientist), e-mail DEROEZ@rm.dk or Karen Ottosen Møller (research nurse), e-mail karemoel@rm.dk, Questions regarding treatment recommendation; please contact Birgitte Klug Albertsen, e-mail biralber@rm.dk, mobile +45 20224643.