

## SERVICE DELIVERABLES FOR CEREBROSPINAL FLUID ANALYSIS

### Research use only

All listed biomarkers are available for Cerebrospinal fluid samples.  
Biomarkers marked with \* are not available for 150 µL volume.

| Name                                  | Unit   |
|---------------------------------------|--------|
| <b>Amino acids</b>                    |        |
| Alanine                               | mmol/l |
| Glutamine                             | mmol/l |
| Histidine                             | mmol/l |
| Lysine                                | mmol/l |
| <b>Branched-chain amino acids</b>     |        |
| Isoleucine                            | mmol/l |
| Leucine                               | mmol/l |
| Valine                                | mmol/l |
| <b>Aromatic amino acids</b>           |        |
| Phenylalanine                         | mmol/l |
| Tyrosine                              | mmol/l |
| <b>Dietary metabolites</b>            |        |
| Ascorbate                             | mmol/l |
| Fructose                              | mmol/l |
| <b>Glycolysis related metabolites</b> |        |
| Glucose                               | mmol/l |
| Lactate                               | mmol/l |
| Pyruvate                              | mmol/l |
| Citrate                               | mmol/l |
| Myo-Inositol                          | mmol/l |
| <b>Ketone bodies</b>                  |        |
| 3-Hydroxybutyrate                     | mmol/l |
| Acetate                               | mmol/l |
| <b>Fluid Balance</b>                  |        |
| Creatinine                            | mmol/l |
| <b>Miscellaneous</b>                  |        |
| 2-Hydroxybutyrate                     | mmol/l |
| 2-Hydroxyisovalerate                  | mmol/l |
| 2-Ketoisovalerate                     | mmol/l |
| 3-Hydroxyisobutyrate                  | mmol/l |
| 3-Hydroxyisovalerate                  | mmol/l |
| Creatine                              | mmol/l |
| Formate                               | mmol/l |
| Mannose                               | mmol/l |
| Urea*                                 | mmol/l |

If Nightingale is not able to deliver the Service Deliverables due to inability of Nightingale's Service to analyse the data with more than 20% of metabolic measures missing for a Sample, there will be no charge for the respective Sample.