

Sertraline

General	
• Class of the drug:	Antidepressants
• Synonym(s):	
• Common trade name(s) in Switzerland:	Gladem [®] , Zoloft [®]
• Conversion factors:	$\mu\text{g/l} \times 3.26 = \text{nmol/l}$ $\text{nmol/l} \times 0.31 = \mu\text{g/l}$
Clinical pharmacology	
• Indications for TDM:	Individual dose adaptation, verification of compliance, side effects, suspicion of toxicity
• Protein binding:	98 %
• Elimination half-life:	22 – 36 h for sertraline 62 – 104 h for N-desmethylsertraline
• Volume of distribution:	> 20 l/kg
• Metabolism:	
- Main metabolic pathways:	CYP3A4, CYP2D6, CYP2B6, CYP2C9
- Active metabolite(s)?	N-Desmethylsertraline
- Inhibitor or inducer of the cytochrome P450 system?	Weak inhibitor of CYP2D6 and CYP3A4
- Other significant pharmacokinetic interactions:	No
• Elimination of parent drug:	Hepatic 50 % Renal 50 %
• Typical therapeutic range:	12.4 – 62.0 $\mu\text{g/l}$ (40 – 200 nmol/l)
• Potentially toxic concentration:	Not known
Pre-analytics	
• Time to steady-state since beginning of treatment or change of posology:	~ 5 days
• Time for blood sampling:	Before next dose at steady state
• Type(s) of sample:	Serum or plasma
• Stability:	One week at 4°C

Analytics	
<ul style="list-style-type: none"> Position(s) in the analysis list/Method: 	8636.02 HPLC/GC 8636.03 LC-MS/GC-MS
Remarks	None
References	<ul style="list-style-type: none"> <i>Compendium suisse des médicaments, Documed, 2005</i> <i>Linder et al., Clin. Chem. 44 (1998) 1073</i> <i>Lucca et al. Ther. Drug Monit. 22 (2000) 271</i> <i>Montgomery J. Clin. Psychiatry 57 (1996) 24</i> <i>Baumann et al. Pharmacopsychiatry 37 (2004) 1</i>