

# Massive baclofen self-poisoning in a 16 years-old teenager: a case report

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## Introduction

**Baclofen** is a selective agonist of the GABA(B) receptor, originally used as treatment for central spasticity and, occasionally to treat alcohol addiction.

*Symptoms of baclofen intoxication* : severe respiratory depression, autonomic disturbances, seizures and coma.

Patient was found *unresponsive* by her father at home.

**Clinical examination at admission** in emergency department:

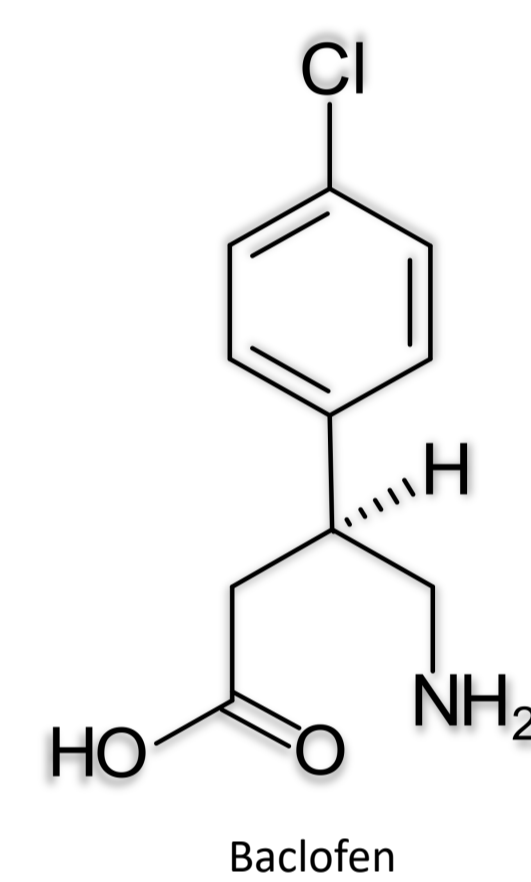
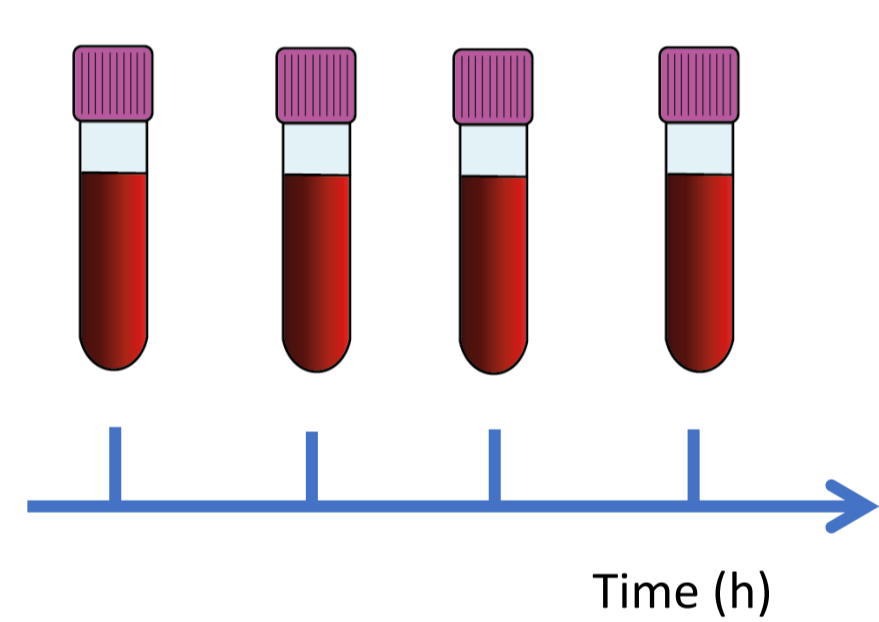
- Respiratory acidosis : pH 7.17
- Hypotension : 101/53 mmHg
- Glasgow Coma Score : 3

## Aim of the Study

The aim of the study was to research and quantify baclofen in patient blood and establish elimination kinetics of the drug.

## Material and Methods

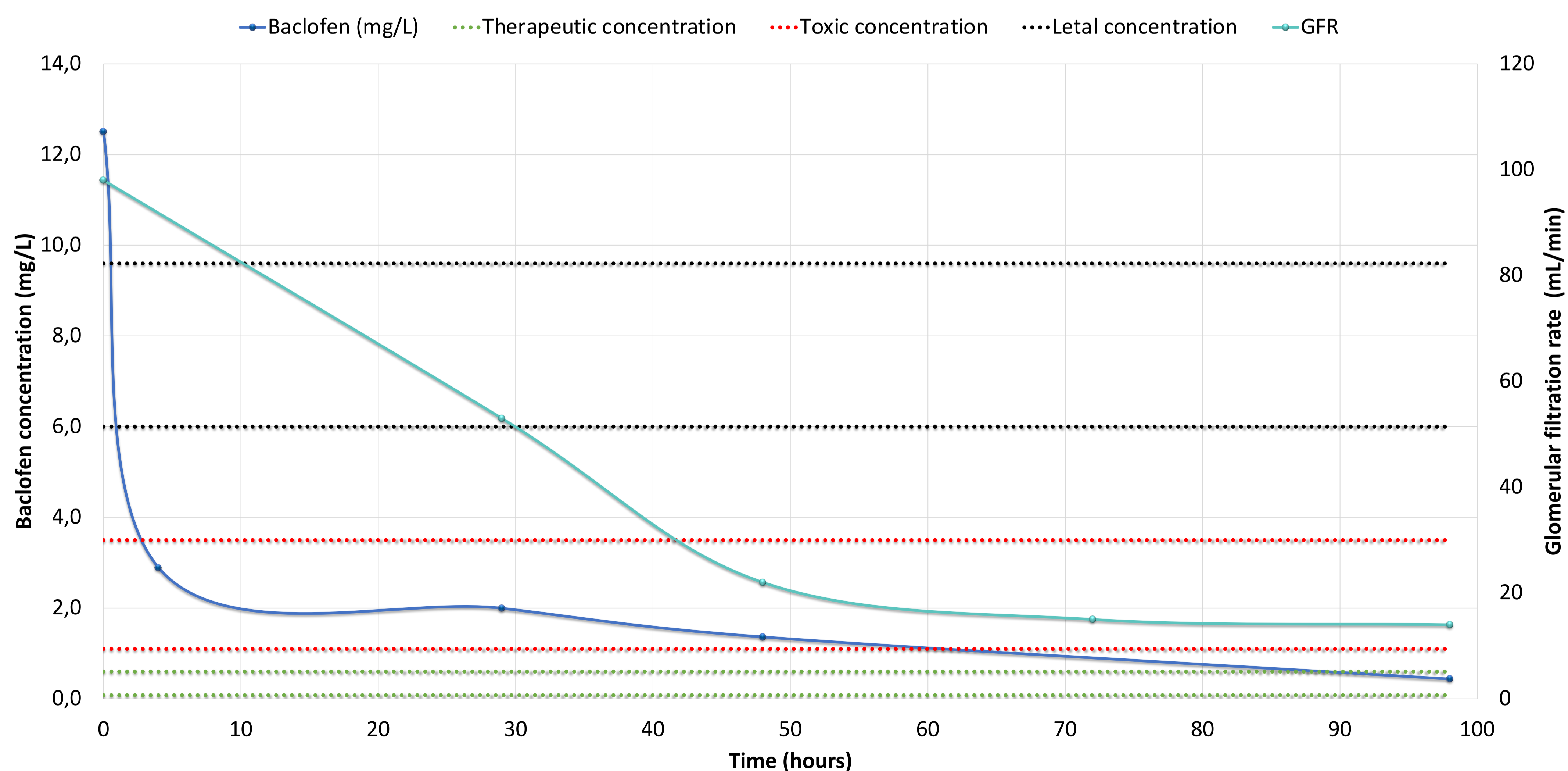
Successive determinations of baclofen in patient blood were made at different times since admission at emergency unit. For assaying baclofen, samples were analyzed by LC-MS/MS.



## Results

Time (h)	Baclofen (mg/L)	Creatinin (mg/dL)	GFR (mL/min)	CRP (mg/L)
0	12.5	0.78	98	0
4	2.89	/	/	/
29	2.00	1.33	53	81.8
48	1.36	2.83	22	183.8
98	0.437	4.2	15	154.7

Baclofen elimination kinetics and evolution of GFR over time



## Conclusions

Baclofen intoxication can severely disturb the automatic and central nervous system, even at low concentrations. Admissions in intensive care unit are frequently prolonged by induced renal failure. Laboratory results are essential to detect and quantitate possible drug intoxications and allow clinicians to provide appropriate care. In this case, intensive supportive care was vital for the patient. Severe renal failure occurred within 48 hours (GFR: 22 ml/min), explaining the low elimination of baclofen (1.36 mg/L at +48 hours, 0.437 mg/L at +98 hours). Finally, therapeutic blood concentration of baclofen was obtained at +98 hours. This corresponding to the moment of improvement of the patient condition.