

# Development of a stability-indicating assay method and study of the physico-chemical stability of Etoposide phosphate in 0.9% sodium chloride solution

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## Introduction



Macrophage activation syndrome (MAS) is a rare complication of certain haemopathies characterised by tissue infiltration by activated macrophages. The standard treatment consists of intravenous administration of Etoposide phosphate (EP) at a dose of 150 mg/m<sup>2</sup>. To manage this therapeutic emergency, EP must be available without delay. One way of meeting this need is to set up standard doses.

## Objectifs



Development of a stability indicator method  
Study of the physico-chemical stability of a solution of EP at 1 mg/mL in a 0.9% NaCl solution

## Materials & Methods

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| Chromatographic conditions               |                                                       |
|------------------------------------------|-------------------------------------------------------|
| HPLC                                     | Ultimate 3000<br>Diode array detector                 |
| Mobile phase                             | 80% 10 mM phosphate buffer pH 3.2<br>20% acetonitrile |
| Column                                   | Polaris® C18 250x4.6mm (5µm)                          |
| Wavelength<br>(detection/quantification) | 210 nm                                                |
| Injection volume                         | 20 µL                                                 |
| Flow                                     | 1 mL/min                                              |
| Analysis time                            | 40 minutes                                            |

