5PSQ-061
L01 - Cytostatics

Stability of carboplatin infusion solutions used in desensitisation protocol

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INTRODUCTION: Carboplatin desensitization protocols allow the continuation of treatment in patients who have presented hypersensitivity reactions by gradually re-introducing small amounts of the drug up to full therapeutic doses from 3 solutions:

Solutions	Dose	Volume	Concentration
Solution A	5 mg	250mL	0.02mg/mL
Solution B	50mg	250mL	0.20mg/mL
Solution C	500mg	250mL	2.00mg/mL

Standard carboplatin desensitization protocol using a total dose of 500 mg

<0.5mg/mL

THE PROBLEM: There is a lack of stability data for carboplatin solutions diluted below 0.5 mg/mL.

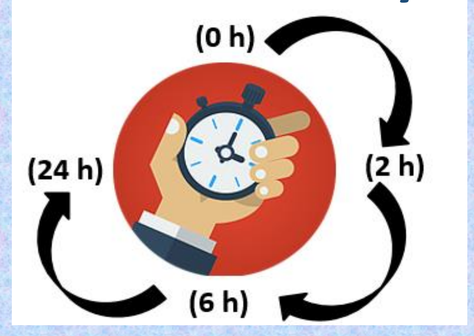
PURPOSE: To determine the stability of carboplatin infusion solutions diluted to 0.2mg/mL in 250ml of 5% dextrose and stored in polypropylene infusion bags.

MATERIALS AND METHODS:

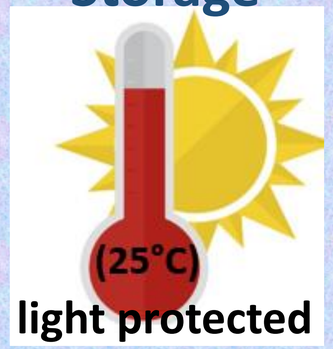
Agilent 1200
C18, 4,6x15-5mm
MeOH/H2O (2/98)
1ml/min
230nm

Samples

Times of study



Storage



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✓ **VALIDATION of ANALITICAL PROCEDURE**

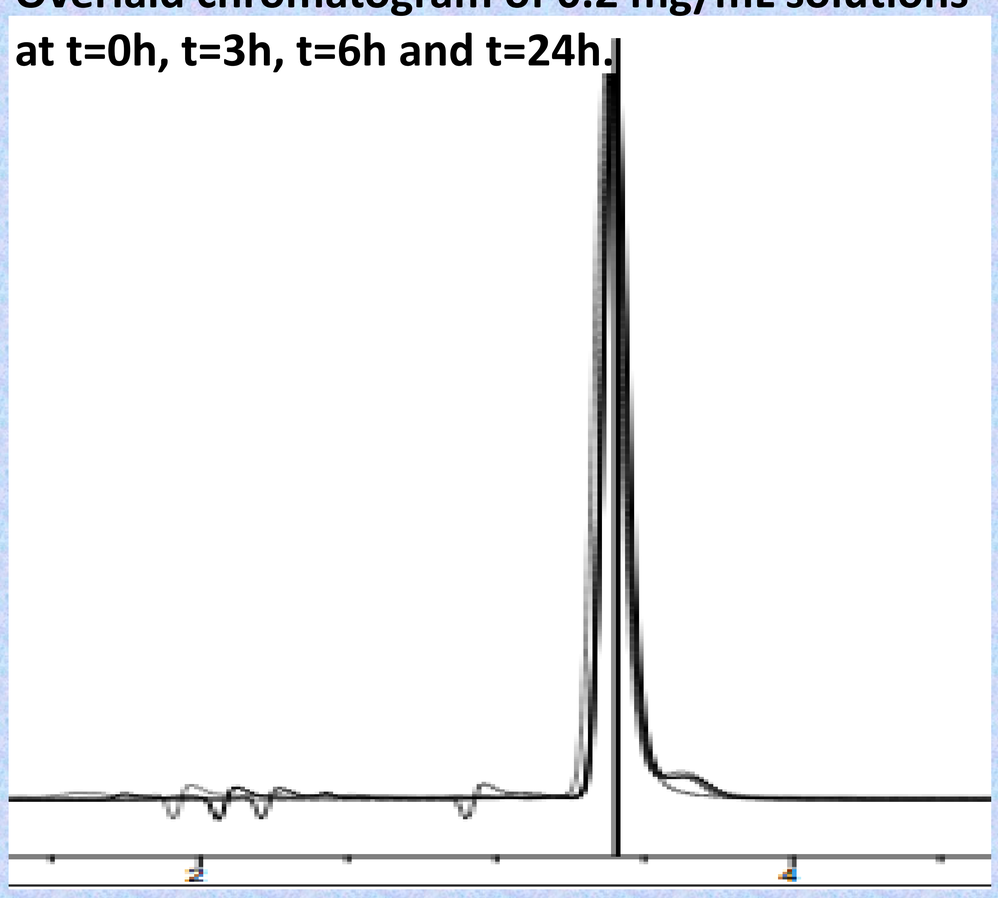
linearity, accuracy, repeatability, LOD, LOQ and degradation products

RESULTS:

Samples	Time of storage	Remaining Concentration (mean±SD %)
0.2 mg/mL	T=0 h	100±1.6
	T=3 h	98.27±0.2
	T=6 h	97.3±2.5
	T=24 h	101.5±0.9

Stability was defined as retention of 95%-105% of the initial carboplatin concentration

Overlaid chromatogram of 0.2 mg/mL solutions at t=0h, t=3h, t=6h and t=24h.



CONCLUSIONS: Carboplatin 0.2mg/ml solution is stable for 24 hours at room temperature in 5% dextrose polypropylene infusion bags and it can be prepare in advance.

23rd Congress of EAHP. 21st-23rd March 2018. Gothenburg

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