

Administration Guidelines for Cytotoxics Associated with Infusion-related Reactions A Guide for Chemotherapy Nurses

The cytotoxics in the table below are all associated with infusion-related reactions, which can sometimes be severe and lead to full-blown anaphylaxis.

The risk of a severe reaction with docetaxel, paclitaxel and caelyx (liposomal doxorubicin) is greatest within minutes of starting the first infusion. The severity of a reaction may also be infusion rate-dependent, with a slower infusion rate reducing the likelihood and/or severity of a reaction.

For docetaxel and paclitaxel, a gradual increase in infusion rate has been shown to allow patients who previously experienced hypersensitivity reactions to successfully complete their treatment.¹ And the SPC for Caelyx recommends a gradual increase in infusion rate for those patients who have experienced a reaction.

However, instead of using a slower infusion rate for patients who have already experienced a reaction, SLCC has adopted the practice of using a gradual increase in infusion rate with 1st / 2nd doses as below. This has been shown subjectively to reduce both the incidence and severity of reactions with these drugs, and so minimise distress for patient and disruption for staff.

Nurses may choose to follow the information below instead of the relevant chemotherapy protocol for the doses indicated, particularly in those patients who are anxious about treatment or have a significant allergy history.

Cytotoxic	When to follow these guidelines	Suggested administration details	
Caelyx (liposomal doxorubicin)	1 st dose only	Give the first 20ml at 50ml/hr; then increase to give 20ml at 100ml/hr; then infuse 20ml at 150ml/hr; then give remaining volume (approx 200ml) at 250ml/hr	
Carboplatin	All doses	Give over 1 hour (instead of 30 minutes)	
Docetaxel	1 st and 2 nd doses only Note that suggested rates depend on bag size, with doses > 185mg now in 500ml bags	250ml bag: Give 20ml at 50ml/hr; then 20ml at 75ml/hr; then 20ml at 100ml/hr; then 20ml at 150ml/hr; then give remaining volume (approx 170ml) at 250ml/hr.	500ml bag: Give 40ml at 100ml/hr; then 40ml at 150ml/hr; then 40ml at 200ml/hr; then 40ml at 300ml/hr; then give remainder (approx 350ml) at 500ml/hr
Paclitaxel 175mg/m ² (3 hour infusion)	1 st dose only	Give the first 20ml at 50ml/hr; then increase to give 20ml at 100ml/hr; then infuse 20ml at 150ml/hr; then give remaining volume (approx 500ml) at 183ml/hr	
Rituximab	1 st dose only	start at 25mg/hr for 30 minutes, then increase to 50mg/hr for 30 minutes, then escalate in 50mg/hr increments every 30 minutes to maximum of 400mg/hr, as protocol	

¹Feldweg et al; Rapid desensitization for hypersensitivity reactions to paclitaxel and docetaxel: A new standard protocol used in 77 successful treatments. *Gynecologic Oncology* (2005); Vol 96 (3): 824-829

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