Title:	**Guidelines for the Management of Systemic Anti-Cancer Treatment (SACT) Hypersensitivity Reactions (HRs) in Adults**			
Author(s)	Laura McCann, Specialty Doctor Oncology Laurax.mccann@belfasttrust.hscni.net Dr Sarah McKenna, Consultant Medical Oncologist Sarah.mckenna@belfasttrust.hscni.net Lynne Edgar, Quality Assurance Manager for SACT, lynne.edgar@belfasttrust.hscni.net Ian Sturgess, Clinical Lead Pharmacist, Oncology/Haematology Ian.sturgess@belfasttrust.hscni.net Victoria Campbell, Deputy Ward Sister BWS Oncology Victoria.campbell@belfasttrust.hscni.net			
Ownership:	Caroline Leonard, Director of Surgery and Specialist Medicines			
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Date	Version	Author	Comments
21/12/18	0.1	L McCann	Initial draft issued for consultation
01/02/19	0.2	L McCann	Amended in advance of
07/03/19	1.0	L McCann	Final Version

INTRODUCTION / PURPOSE OF POLICY

1.1 Background

The administration of SACT can be associated with infusion reactions (IRs) with a range of severities. For a minority of SACT treatments, associated infusion reactions (IRs) are well characterised and management pathways established. These include the pharyngeal dysaesthesia associated with Oxaliplatin, the acute cholinergic syndrome seen with Irinotecan and the flu like symptoms seen with Trastuzumab. The recognition and treatment of these specific types of IRs are outlined in the SACT protocol guidelines.

For the majority of SACT treatments however, the IRs observed are less well characterised, and this guideline refers specifically to these reactions which we have termed hypersensitivity reactions (HRs). The pathophysiology of such reactions is often uncertain but includes IgE mediated effects (often associated with multiple exposures to the causative agent) and direct mast cell degranulation (may be associated with reactions occurring on initial exposure to the SACT).

Regardless of the specific aetiology and pathophysiology, these reactions have common clinical features and in practice are treated in a uniform way.

1.2 Purpose

To provide guidance on the management of Systemic Ant-Cancer Treatment (SACT) hypersensitivity reactions (HRs)

This policy should be read in conjunction with the NICaN guidance on the Management of Anaphylaxis.

1.3 Objectives

To provide a systematic approach to the management of SACT hypersensitivity reactions.

2.0 SCOPE OF THE POLICY

The policy applies to adult in-patient and out-patient oncology and haematology services

3.0 ROLES/RESPONSIBILITIES

The policy applies to all staff involved in the prescribing and administration of SACT to adult patients in BHSCT oncology and haematology in-patient and out-patient services.

4.0 KEY POLICY PRINCIPLES

4.1 Definitions

SACT: Systemic Anti-Cancer Treatment

HR: Hypersensitivity Reactions

CTCAE v5: Common Terminology Criteria for Adverse Events version 5

4.2 Key Policy Statement(s)

This policy provides a systematic approach the management of HRs associated with the administration of SACT.

4.3 Policy Principles

HRs are a common complication of SACT. To ensure the safe and effective delivery of SACT it is important that clinicians and nurses delivering SACT are competent in the recognition and management of HRs.

The likelihood of a patient suffering a HR is dependent on the drug and on the number of treatment cycles that they have had.

Taxanes such as Paclitaxel and Docetaxel for example commonly cause HRs and these occur most commonly at the 1st or 2nd exposure.

Platinum agents such as Carboplatin and Cisplatin are also commonly associated with HRs, but these are rare at cycle 1 or 2 becoming increasingly common with increasing number of exposures to the drug.

Medication to reduce the risk of HRs may be prescribed with some SACTs and it must be ensured that these have been taken before SACT is administered.

Recognising a HR:
There is a wide spectrum of symptoms associated with HRs. These include wheeze, dyspnoea, itch, urticarial rash, flushing, nausea, vomiting, dizziness, abdominal pain and collapse. A high index of suspicion should be maintained in all patients receiving SACT even when symptoms are atypical.

Reacting to an HR:

Initial management of an HR is dependent on its severity.

HR associated with life threatening features such a stridor, hypoxia, hypotension or collapse should be treated according to the Resuscitation (UK) Guidelines/BCH Trust Anaphylaxis Guidelines.

In patients in which the HR is not associated with life threatening features management is as follows:

- the infusion should be stopped immediately but IV access maintained.
- the patient should be assessed clinically including a NEWS score.
- patients with respiratory symptoms should be given 100% Oxygen.
- patients in whom cessation of SACT does not immediately resolve symptoms should be given Hydrocortisone 200mg IV slow bolus, Chlorphenamine 10mg IV slow bolus and Ranitidine 50mg IV

If the patient's symptoms settle they should be observed for a period of 30mins.
If they remain asymptomatic, the infusion can be recommenced at 50% of the previous infusion rate. If tolerated after 30 mins the infusion can be increased to the usual rate.
If, for institutional reasons, the infusion has to be re-started on a different day, the dose administered at the time of the reaction should be calculated and the dose to be administered on a different day discussed with the treating team.

If symptoms do not settle after 30 minutes admission should be considered.

Management of an acute HR is summarised in Figure i.

Record:

All HRs should be graded according to the CTCAE v5.

Grade 1	Grade 2	Grade 3	Grade 4
Mild HR; infusion interruption not indicated; intervention not indicated	Therapy or infusion interruption indicated but responds promptly to symptomatic treatment.	Prolonged (ie not rapidly responsive to symptomatic medication and/or brief interruption of the infusion); recurrence of symptoms following initial improvement; hospitalization required for clinical sequelae	Life-threatening consequences; urgent intervention indicated

The HR must be recorded on RISOH as follows:

Nursing:
1. Adverse Reaction nursing questionnaire to be completed.
2. "Adverse reaction" to be recorded in Drug Admin tab.
3. Amount of drug received to be recorded in Drug Admin tab.

Medical:
Adverse Reaction questionnaire to be completed including Grade of HR

Rechallenge:

All patients who have had a Grade 1 or Grade 2 reaction should be considered for re-challenge.

Consideration should be given to the timing and location of re-challenge.

They should receive the standard pre medication as follow*:

Oral Medications Day 0-2:

Dexamethasone 8mg PO BD Day 0-2
Ranitidine 150mg PO BD Day 0-2
Cetirizine 10mg Mane Day 0-2

IV medications 30minutes prior to SACT:

Dexamethasone 8mg IV
Ranitidine 50mg IV
Chlorphenamine 10mg IV

SACT should be commenced at 50% of usual rate. If tolerated this can be increased to usual rate after 30 mins.

If a re-challenge is successful, consideration may be given to reducing the Dexamethasone dosage in subsequent cycles for drugs (such as Paclitaxel) for which the risk of a HSR reduces after cycle 1

Patients who have had a Grade 3 or Grade 4 HSR should not routinely be re-challenged. All should be discussed with the consultant.

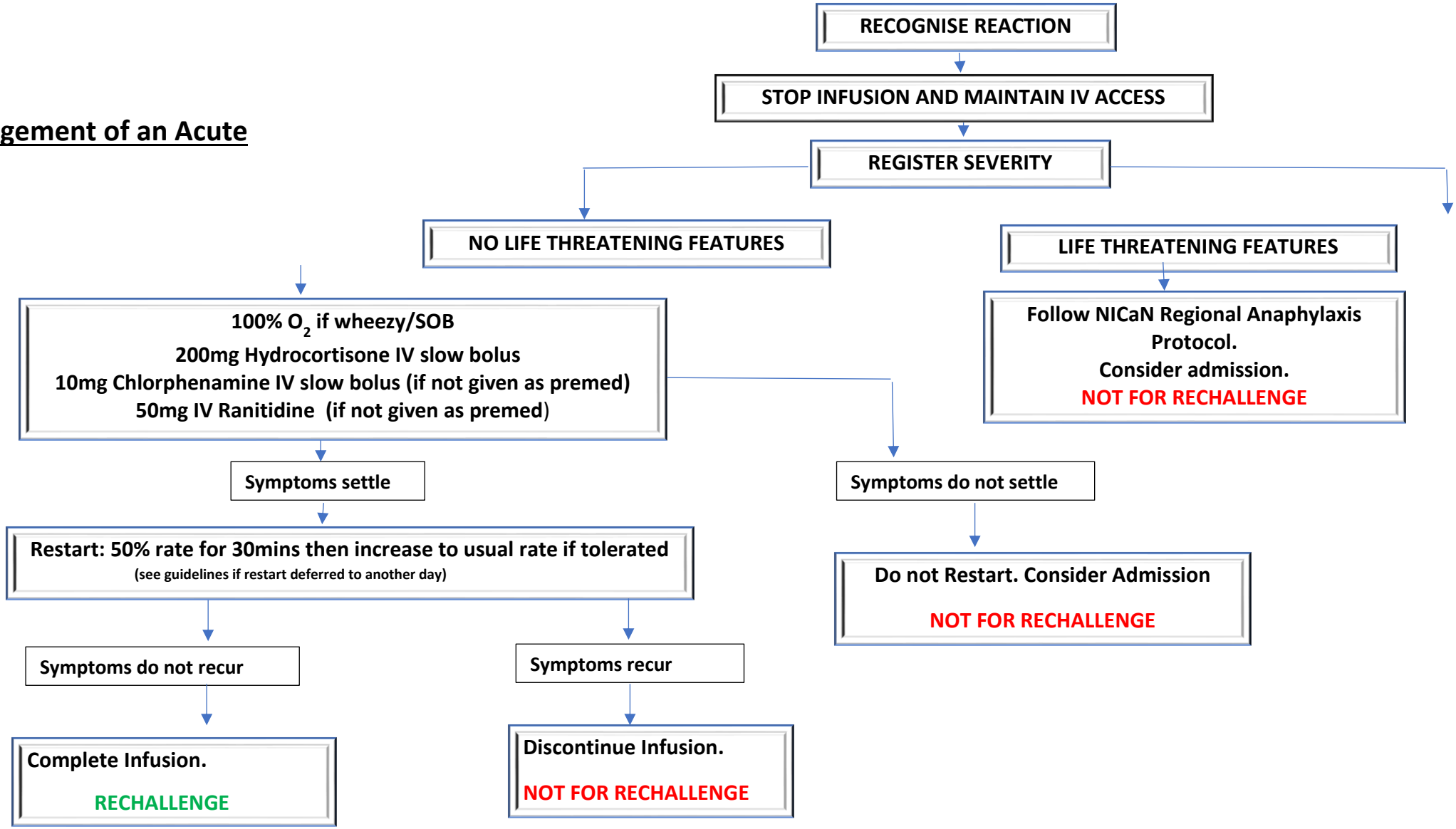
*(*Exceptions to this are as follows:*

- *Immunotherapy – patients who are to be rechallenged following an HR to immunotherapy should not receive steroids at re-challenge.*

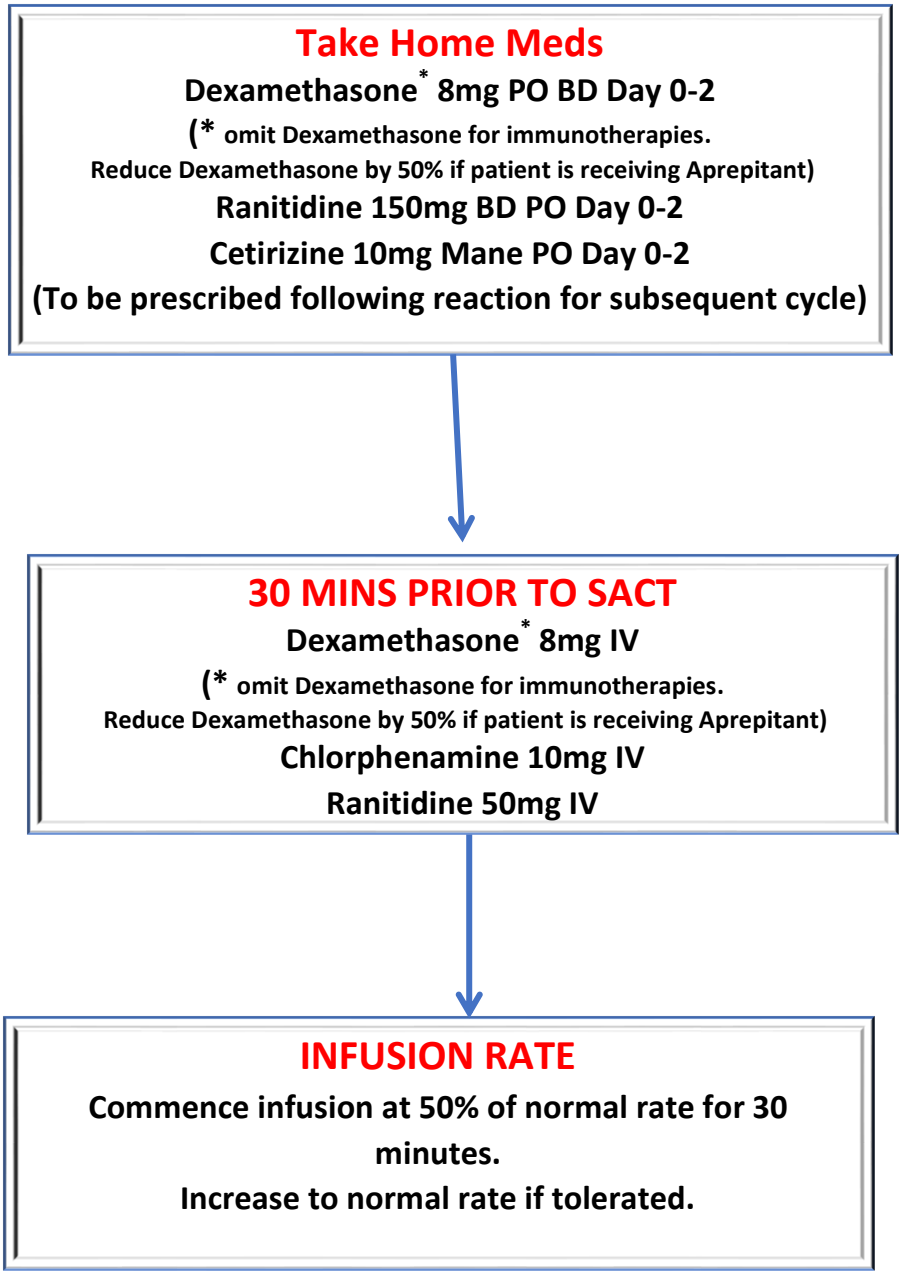
- *Aprepitant – it must be remembered that Aprepitant increases the bioavailability of Dexamethasone. Patients who are receiving Aprepitant and who are to be re-challenged after an HR should have the Dexamethasone dose reduced by 50% ie Dexamethasone 4mg BD Day 0-2)*

Rechallenge following an acute HR is summarised in Figure ii.

Management of an Acute HR (i)



Rechallenge: Management of subsequent SACT infusions following an HR (ii)



If re-challenge is successful consider reducing or omitting Dexamethasone in subsequent cycles for drugs in which HSRs are most commonly seen at cycle 1 or 2 e.g. Paclitaxel and Docetaxel.

5.0 IMPLEMENTATION OF POLICY

5.1 Dissemination

For circulation to all staff involved in the administration of SACT to adult patients throughout the Network (including private facilities / non statuary domiciliary providers).

Raise awareness locally with regards to the implementation of the guidelines.

The author(s) of the policy should be notified if there are significant barriers and timescales are not being met.

5.2 Resources

It is planned that this updated policy will be presented at a departmental oncology safety meeting to update all staff involved in the prescription and administration of SACT.
Further detailed education sessions will be held with the nurses and doctors involved in the administration of SACT.
Flow sheets outlining the policy will be posted in all areas where SACT is delivered.
It is planned that an audit examining implementation of the guideline will be performed a few months after its implementation.

5.3 Exceptions

This policy will apply to all oncology patients receiving SACT within the Belfast Trust.

6.0 MONITORING

Implementation of this policy will be monitored as part of SACT multiprofessional review of chemotherapy incidents.

7.0 EVIDENCE BASE / REFERENCES

1) Rosello et al. Management of infusion reactions to systemic anticancer therapy: ESMO Clinical Practice Guidelines. Annals of Oncology 28 (supplement 4): iv100-iv118, 2017.

2) Royal Marsden Hospital: “Guidelines For Managing Hypersensitivity Reactions”

3) Belfast Trust Guidelines
http://intranet.belfasttrust.local/policies/Documents/Anaphylactic reactions - Recognition and management of.pdf

4) Resuscitation (UK) Guidelines 2015.

5) NICAN SACT Protocols – Available at:
https://community.sharepoint.hscni.net/sites/nican/risoh/protocols/SitePages/Home.aspx

8.0 CONSULTATION PROCESS

Through the auspices of NICaN SACT Group which has widespread membership.

9.0 APPENDICES / ATTACHMENTS

None.

10.0 EQUALITY STATEMENT

The Trust has legal responsibilities in terms of equality (Section 75 of the Northern Ireland Act 1998), disability discrimination and human rights to undertake a screening exercise to ascertain if this policy/proposal has potential impact and if it should be subject to a full impact assessment. This process is the responsibility of the policy or service lead - the template and guidance are available on the Belfast Trust Intranet. Colleagues in Equality and Planning can provide assistance or support.
The outcome of the Equality screening for this policy is:

Major impact ☐

Minor impact ☐

No impact x

11.0 DATA PROTECTION IMPACT ASSESSMENT

New activities that involve collecting and using personal data can result in privacy risks. In line with requirements of the General Data Protection Regulation (GDPR) and the Data Protection Act 2018 the Trust has to consider the impacts on the privacy of individuals and ways to mitigate

against the risks. Where relevant an initial screening exercise should be carried out to ascertain if this policy should be subject to a full impact assessment (see Appendix 7). The guidance for conducting a Data Protection Impact Assessments (DPIA) can be found via this **link.**
The outcome of the DPIA screening for this policy is:

Not necessary – no personal data involved ☐

A full data protection impact assessment is required ☐

A full data protection impact assessment is not required ☐

If a full impact assessment is required the author (Project Manager or lead person) should go ahead and begin the process. Colleagues in the Information Governance Team will provide assistance where necessary.

12.0 RURAL IMPACT ASSESSMENTS

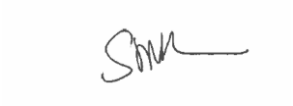
From June 2018 the Trust has a legal responsibility to have due regard to rural needs when developing, adopting, implementing or revising policies, strategies and plans, and when designing and delivering public services.
It is your responsibility as policy or service lead to consider the impact of your proposal on people in rural areas – you will need to refer to the shortened rural needs assessment template and summary guidance on the Belfast Trust Intranet. Each Directorate/Division has a Rural Needs Champion who can provide support/assistance in this regard if necessary.

13.0 REASONABLE ADJUSTMENTS ASSESSMENT

Under the Disability Discrimination Act 1995 (as amended), the Trust has a duty to make reasonable adjustments to ensure any barriers disabled people face in gaining and remaining in employment and in accessing and using goods and services are removed or reduced. It is therefore recommended the policy explicitly references "reasonable adjustments will be considered for people who are disabled - whether as service users, visitors or employees.

SIGNATORIES

(Policy – Guidance should be signed off by the author of the policy and the identified responsible Director).



Date: October 2019

Authors Dr Sarah McKenna

Date: September 2019

Director Ms Caroline Leonard