

GUIDELINE FOR THE MANAGEMENT OF IMMUNE-RELATED ADVERSE REACTIONS FOLLOWING IMMUNOTHERAPY TREATMENT

This guidance does not override the individual responsibility of health professionals to make appropriate decision according to the circumstances of the individual patient in consultation with the patient and /or carer. Health care professionals must be prepared to justify any deviation from this guidance.

Introduction

This guideline refers to the management of immunotherapy induced adverse reactions. It encompasses the pathway of care to follow, when a patient over the age of 16 who has received immunotherapy in adult services, presents to Worcestershire Acute Hospitals NHS Trust.

This policy refers to patients who may present to the trust via Accident & Emergency who are receiving Immunotherapy elsewhere but who live locally.

This guideline is for use by the following staff groups:

This guideline is for utilisation by trained medical and nursing staff. Educational updates will be provided for medical and nursing staff.

Lead Personnel (s)

Dr. Lisa Capaldi Clinical lead

Dr N Murukesh Consultant Medical Oncologist

Mrs Helen Grist Immunotherapy Clinical Nurse Specialist

Mrs S Cook Lead Pharmacist

Mrs A Jones Acute Oncology Nurse Practitioner

Guideline approved by:

Haematology & Palliative Care Governance meeting 10th September 2020

Oncology Governance meeting 15th July 2020

Medicines Safety Committee 14th October 2020

Review Date 13th September 2024

This is the most current document and is to be

used until a revised version is available:



Key Amendments made to this document:

Date	Amendment	Ву
	Guideline approved by Clinical Effectiveness	
	Committee	
9 th October 2019	09/10/2019- Document extended for 6 months whilst	Helen Grist/Lisa
	document is taken through consultants meeting and	Rowberry
	reviewed	
May 2020	Document extended for 6 months during COVID-19	
October 2020	Guideline updated and derived from the Clatterbridge	Helen Grist/MSC
	ones.	
20 th December 2021	Pneumonitis Guideline added	Helen Grist
13 th March 2024	Document extended for 6 months whilst under review.	Helen Grist

Contents

Section:-

- 1. Introduction
- 2. Definitions
- 3. Pre treatment investigations and patient education
- 4. Management of Immune-related adverse events induced by Immunotherapy
- 5. Ongoing Management
- 6. Contact Numbers for Advice
- 7. Training
- 8. References
- 9. Monitoring Tool
- 10. Appendix 1: Acute oncology adverse event tool
 - **Appendix 2: Patient Letter for Immunotherapy**
 - **Appendix 3: GP information letter**
 - **Appendix 4: Immunotherapy Adverse event Card**
 - Appendix 5: Pathway of mangement for assessment or admission.

GUIDELINE FOR THE MANAGEMENT OF IMMUNE-RELATED ADVERSE REACTIONS FOLLOWING		
IMMUNOTHERAPY TREATMENT		
WAHT-CS-094 Page 2 of 29 Version 2.2		



Guideline For The Management of Immune-Related Adverse Reactions Following Immunotherapy Treatment

1. INTRODUCTION

This policy refers to the management of immunotherapy induced adverse reactions. It encompasses the pathway of care to follow when a patient over the age of 16 who has received immunotherapy in adult services presents to Worcestershire Acute Hospitals NHS Trust.

2. DEFINITIONS

Immunotherapy agents are a relatively new class of anti-cancer drugs which reactivate the Immune system to destroy cancer cells. The side effect profile for these agents is different from that of standard cytotoxic drugs. They can cause severe immune-related adverse reactions including serious immune-related endocrinopathies, which can be fatal. Thus, it is important to recognise and address symptoms early.

The majority of immune-related reactions occur over the course of treatment. However, they can occur weeks to months after discontinuation of treatment.

3. PRE TREATMENT INVESTIGATIONS AND PATIENT EDUCATION

Prior to commencing treatment, all patients must be informed of the potential side effects (Risk of adverse reactions) and what action to take should they experience these side effects. All patients must be given drug specific information and an immunotherapy alert card containing contact details for the acute oncology service. Patients should be advised to contact the hospital straight away if they have any of the following symptoms:

- Lung: breathing difficulties or cough
- Bowel: watery or loose stools, mucous or blood in stool, stomach pains or cramps
- Liver: eye or skin yellowing, pain on right side of stomach
- Kidney: changes in volume of urine
- Endocrine: extreme tiredness, weight change, headache, visual disturbances



- Diabetes symptoms: excessive thirst, large volumes of urine, increased appetite
 with weight loss, feeling tired, drowsy, weak, depressed, irritable and generally
 unwell
- Skin: itching, rash, blisters, ulcers, peeling skin
- Eye: redness, pain, blurred vision
- Other: severe upper abdominal pain, nausea, vomiting, numbness, uncoordinated movements, paralysis, muscle weakness
- Heart problems: Chest pain, breathlessness, tiredness, leg swelling

Prior to initiation of treatment the following bloods should be taken as a baseline:

- FBC, renal, liver and bone profile, Glucose, Cortisol, TSH, LDH, Clotting factors. If Pituirary dysfunction evident for testosterone & Oestradiol FSH, Testosterone to be added if indicated by Consultant.
- In the case of Nivolumab, a baseline ECG should be considered as it can cause cardiotoxicity.

These bloods should be repeated before each cycle.

If the patient is stable on treatment the frequency of the blood tests may be reduced.

Patients should have a face to face or telephone, doctor or nurse led clinic review prior to each treatment cycle. If the patient is stable on treatment the frequency of reviews could be reduced.

If the patient contacts the acute oncology service during normal working hours or presents at the Emergency department, they should be assessed and managed as detailed in the 'Initial Management of Immune-related Adverse reactions' flow chart below.

If the patient contacts the acute oncology service out of hours, the AOS nurse should complete the Immunotherapy 'Out of Hours Checklist' (Appendix 1) and follow the instructions on the checklist.



4. MANAGEMENT OF IMMUNE-RELATED ADVERSE EVENTS INDUCED BY IMMUNOTHERAPY

INITIAL MANAGEMENT of IMMUNE - RELATED ADVERSE REACTIONS

WORKING HOURS: INFORM THE ACUTE ONCOLOGY TEAM OF ADMISSION.
OUT OF HOURS: INFORM THE CONSULTANT ONCOLOGIST ON CALL

On presentation, if no obvious infectious and / or disease-related aetiologies

DO NOT WAIT, TREAT AS:

Immune –Related Adverse Reaction or Endocrinopathy as outlined below in the flow charts.

Follow link for CTC grading criteria: https://evs.nci.nih.gov/ftp1/CTCAE/CTCAE_4.03_2010-06-14 QuickReference 8.5x11.pdf

WORKING HOURS: Inform the Acute Oncology Team, for pathway of management of patient from Nurse led clinic, consultant clinic, or pre proceed triage see Appendix 5.

OUT OF HOURS: Inform the Acute Oncology service, if patient requires assessment for admission to be directed to ED to be assessed by medics.

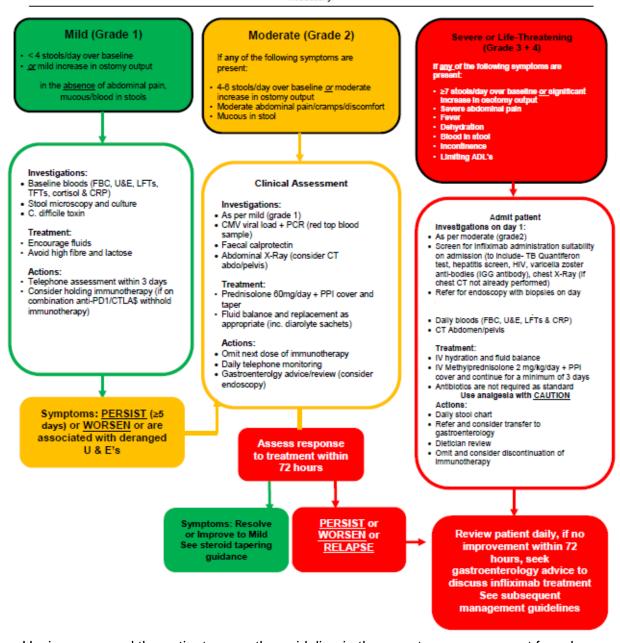
Having assessed the patient as per the guideline in the symptom management for adverse events it may be that referral to a specialist is required. The table below is a list of leads who are able to advise on symptom management as a specialist in their field.

Endocrinology	Dr. Irfan Babar Dr. Munir Babar
Cardiology	Dr. J. Trevelyn
Dermatology	Dr. C.Leitner
Respiratory	Dr. Kate Cusworth
Rheumatology	Dr. Caroline Cardy
Renal	Dr. Martin Ferring
Gastroenterology	Dr. Nic Hudson



Immune-Related Adverse Event: Diarrhoea

Gastrointestinal (GI) irAEs are among the most common and although they are typically mild to moderate in severity, if they are left unrecognised or untreated, they can become life-threatening. These toxicities can be managed effectively in almost all patients by using established guidelines that stress vigilance and the use of corticosteroids and other immunosuppressive agents when necessary.



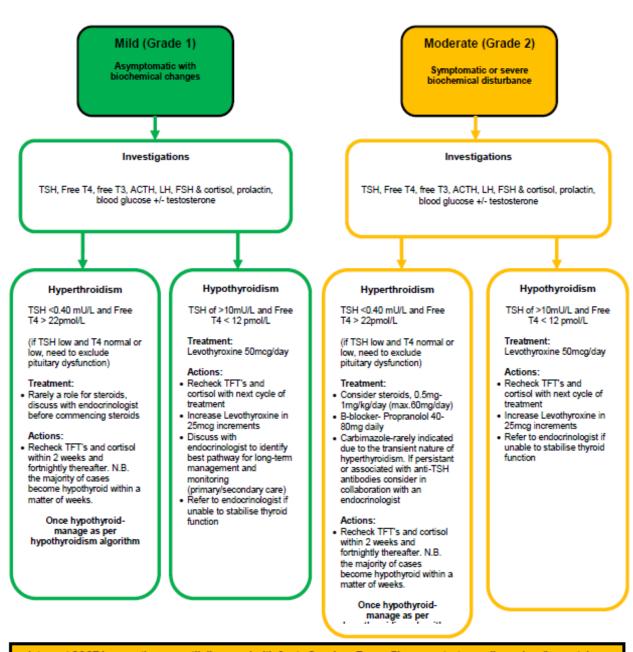
Having assessed the patient as per the guideline in the symptom management for adverse events it may be that referral to a specialist is required

Gastroenterology	Dr. Nic Hudson
------------------	----------------



Immune-Related Adverse Event: Endocrinopathies-Thyroid Dysfunction

Immunotherapy has been causatively associated with a number of endocrinopathies, including hypo/hyperthyroidism. Observational studies have shown that there is a typical pattern of thyroid specific biochemical disturbance presenting with asymptomatic hyperthyroidism, before return to normal levels for a brief period. This is nearly always followed by the development of, in some cases profound, hypothyroidism which is frequently persistent and requires long term thyroid replacement. Smaller subsets of patients develop isolated hypothyroidism over a period of weeks. Both groups appear to require long term replacement in a majority of cases.



Interrupt SACT immunotherapy until discussed with Acute Oncology Team. Please contact <u>on-call oncology/haematology</u> <u>team</u> for advice. Ensure that Acute Oncology/Haematology team are informed of admission.

Having assessed the patient as per the guideline in the symptom management for adverse events it may be that referral to a specialist is required.

Endocrinology Dr. Irfan Babar
Dr. Munir Babar

GUIDELINE FOR THE MANAGEMENT OF IMMUNE-RELATED ADVERSE REACTIONS FOLLOWING			
IMMUNOTHERAPY TREATMENT			
WAHT-CS-094 Page 7 of 29 Version 2.2			



Immune-Related Adverse Event: Hepatoxicity

Hepatic transaminases (ALT/AST) and bilirubin must be evaluated before each dose of immunotherapy, as early laboratory changes may indicate emerging immune-related hepatitis. Elevations in LFTs may develop in the absence of clinical symptoms. This guidance should be used in context of baseline LFTs and presence of known liver metastases. No dose adjustment is required for mild hepatic impairment but data is limited for use of these drugs in moderate/severe hepatic impairment and patients should be closely monitored for elevation in LFTs from baseline.

Prior to commencement of immunotherapy all patients should have LFTs checked

Severe or Life-Threatening Mild (Grade 1) Moderate (Grade 2) (Grade 3/4) AST or ALT < 3 x ULN but AST or ALT >3 to ≤5 x ULN increasing from baseline AST or ALT >5 x ULN (Grade 4 >20 Clinical Admission Investigations: Clinical Assessment Weekly LFT (including ALT) check between cycles of Investigations: Dally LFTs, clotting profile and daily venous Investigations: immunotherapy and ensure Regular LFTs, direct and indirect gas MRI of liver to exclude PD & improving prior to next cycle bilirubin and clotting profile thromboembolism and evaluate if evidence of Inform oncology team MRI/USS of liver to exclude PD & Inflammation thromboembolism and evaluate if Hepatitis viral panel (hepatitis A, B, C, E) Actions: evidence of inflammation CMV, EBV and HIV and auto-antibodies
 Exclude other causes (eg. Heart failure/ PD) Continue immunotherapy · Hepatitis viral panel (hepatitis A, B, C, E)

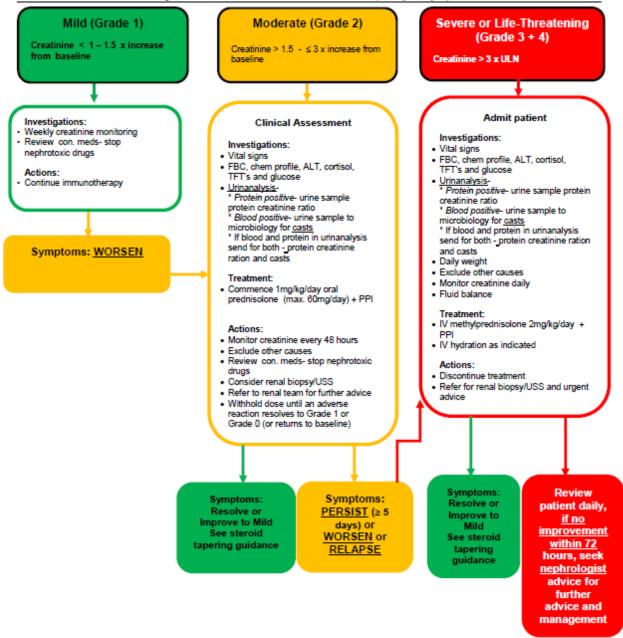
CMV, EBV and HIV and autoantibodies IV methyprednisolone 1-2mg/kg/day IV hydration Treatment: Vitamin K 10mg IV daily X 3 days if INR Commence prednisolone 60mg/day+ PPI deranged Symptoms N-acetylcystine as per paracetamol Biochemical Resolve or overdose protocol in BNF **Abnormality** If albumin low, discuss with hepatologist Improve to Mild PERSISTS (≥3 and consider administration of human albumin solution (HAS) · Withhold dose until the adverse days), reaction resolves to See steroid Grade 0-1 (or returns to baseline). WORSEN or tapering Review medications (e.g statins, Actions: RELAPSE see antibiotics) Referral to hepatologists for further advice if Grade 3 on combination therapy reduce to Re-check LFTs and INR every 3 severe strand days and review patient by monotherapy; if monotherapy continue discontinuation of treatment phone twice weekly (LFT If Grade 4 discontinue treatment permanently oendant) Consider antibiotic prophylaxis with patients on high dose, prolonged steroids Establish escalation plan and celling of care Symptoms: **Abnormality** esolve or Improve to PERSISTS (≥3 Review patient Symptoms: Mild days), WORSEN or daily, if no Resolve or See steroid RELAPSE see improvement within tapering 24 hours, seek Mild severe strand quidance further hepatologist See steroid tapering advice. Follow Subsequent Management <u>Abbreviations</u> guideline LFTs = liver function tests INR = international normalised ratio ULN = upper limit of normal PD = progressive disease

Interrupt SACT immunotherapy until discussed with Acute Oncology Team. Please contact <u>on-call oncology/haematology</u>
<u>team</u> for advice. Ensure that Acute Oncology/Haematology team are informed of admission.



Immune-Related Adverse Event: Renal Toxicities

Elevated creatinine and biopsy confirmed tubulointerstitial nephritis and allergic nephritis have been infrequently observe following treatment with immunotherapy agents. The frequency of renal AEs may be greater with combination therapies than with monotherapy. Most cases were Grade 2 or Grade 3 and based on creatinine elevation. Patients with a history of RCC or prior nephrectomy do not appear to be at higher risk. Events were managed with corticosteroids and in all cases renal function partially or fully improved.



Interrupt SACT immunotherapy until discussed with Acute Oncology Team. Please contact <u>on-call oncology/haematology</u> <u>team</u> for advice. Ensure that Acute Oncology/Haematology team are informed of admission.

Having assessed the patient as per the guideline in the symptom management for adverse events it may be that referral to a specialist is required.

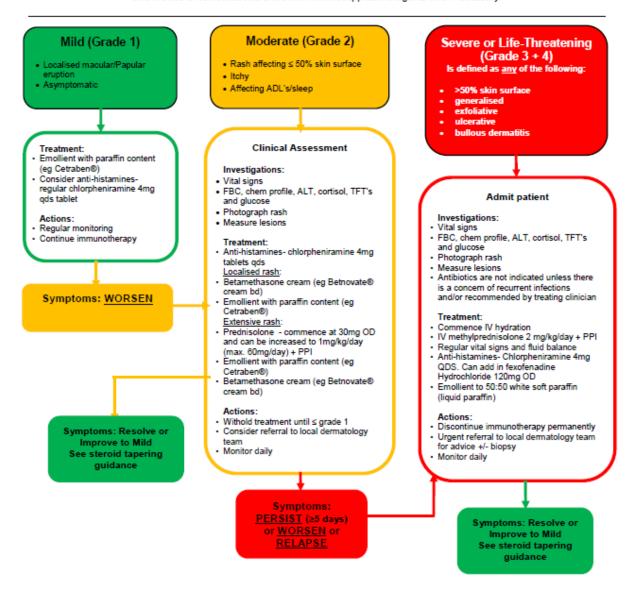
Renal	Dr. Martin Ferring

GUIDELINE FOR THE MANAGEMENT OF IMMUNE-RELATED ADVERSE REACTIONS FOLLOWING		
IMMUNOTHERAPY TREATMENT		
WAHT-CS-094 Page 9 of 29 Version 2.2		



Immune-Related Adverse Event: Skin Toxicities

Immunotherapy administration is associated with immune-related adverse events (irAEs). Dermatological irAEs common and although they are typically mild to moderate in severity, if they are left unrecognised or untreated, they can become life-threatening. These toxicities can be managed effectively in almost all patients by using established guidelines that stress vigilance and the use of corticosteroids and other immunosuppressive agents when necessary.



Interrupt SACT immunotherapy until discussed with Acute Oncology Team. Please contact <u>on-call oncology/haematology</u>
<u>team</u> for advice. Ensure that Acute Oncology/Haematology team are informed of admission.

Having assessed the patient as per the guideline in the symptom management for adverse events it may be that referral to a specialist is required.

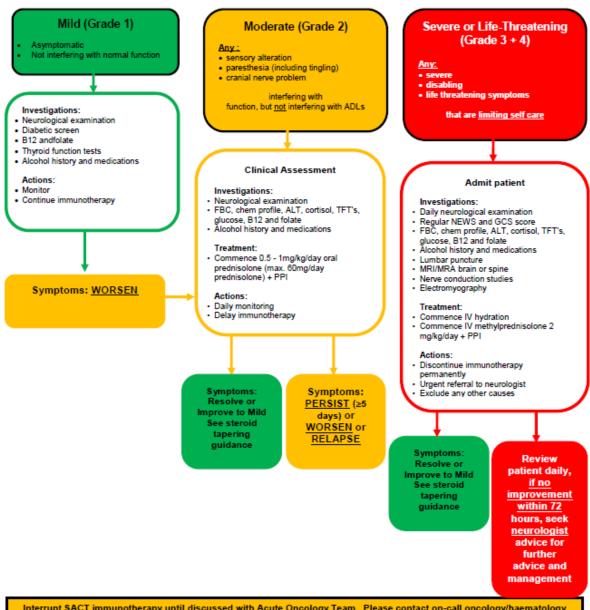
Dermatology	Dr. C.Leitner
-------------	---------------

GUIDELINE FOR THE MANAGEMENT OF IMMUNE-RELATED ADVERSE REACTIONS FOLLOWING		
IMMUNOTHERAPY TREATMENT		
WAHT-CS-094 Page 10 of 29 Version 2.2		



Immune-Related Adverse Event: Neurological Toxicities

Immunotherapy administration is associated with immune-related adverse events (irAEs). Neurologic irAEs can manifest as central abnormalities (eg., asceptic meningitis, encephalitis) or peripheral sensory/motor neuropathies (eg., Guillain-Barre Syndrome). Early recognition and treatment of neurologic AEs is critical to its management. As neurologic symptoms can be common in patients with cancer, it is important that an evaluation/work-up distinguish between non-drug-related causes (eg., progression of disease, concomitant medications, infection) and a possible drug-related AE as the management can be quite



Interrupt SACT immunotherapy until discussed with Acute Oncology Team. Please contact <u>on-call oncology/haematology</u> <u>team</u> for advice. Ensure that Acute Oncology/Haematology team are informed of admission.



Immune-Related Adverse Event: Endocrinopathies- Hypophysitis

Immunotherapy has been causatively associated with a number of endocrinopathies that may present with nonspecific symptoms, which may resemble other causes such as brain metastasis or underlying disease.

Endocrine function panel:

U&E, LFT, TSH, Free T4, free T3, ACTH, LH, FSH & cortisol (between 9-11am if possible), prolactin, blood glucose +/testosterone/oestrogen

CAUTION If the <u>patient is on steroids</u> (prednisolone/dexamethasone) then serum cortisol will likely be suppressed –

Symptomatic Severe headache, visual Asymptomatic Symptomatic 5 2 2 disturbance, evidence of focal Mild/Non-life threatening Identified on routine blood neurology Combination of mild/moderate Suspect endocrinopathy based on symptoms and pituitary symptoms Biochemical alteration in cortisol with inflammation on MRI serum level <400nmol/L Tiredness/fatigue, headache, weight If severe symptoms/signs of loss, susceptibility to infection, normal hormonal insufficiency with no headache/visual BP with no postural drop disturbance/pituitary inflammation then follow adrenal crisis algorithim Hypoadrenalism is likely if cortisol is <100nmol/L Investigations: 9am Cortisol and ACTH · MRI brain with pituitary cuts Investigations: Endocrine Panel inc ACTH · MRI brain with pituitary cuts Cortisol Cortisol 100-400nmol/L Cortisol (9am) Cortisol (9am) <100nmol/L Cortisol >400 nmol/L 100-400 (9am) Investigations nmol/L Investigations <100nmol/L Repeat cortisol Repeat cortisol Admit patient at 9am ≤ 48 insufficiency Adrenal Adrenal at 9am ≤ 24 unlikely insufficiency Immediate Intervention hours insufficiency possible Commence IV methylpred Complete likely Complete 2mg/kg/day for a minimum of 3 endocrine endocrine panel Treatment Actions days without awaiting blood function panel if outstanding Commence if outstanding Consider other Actions Treatment hydrocortisone 20mg/10mg/ Endocrine causes of If clinically improved with mild/resolved symptoms switch Replace with symptoms Actions referral hydrocortisone 10mg Monitor Continue Complete to predmisolone starting at 20mg/10mg/ Reduce down to 60mg OD and reducing every 3 regularly endocrine immuno-10mg 10mg/5mg/5mg after 2 weeks panel including ACTH, (before each therapy days Reduce to cycle as a Once at 10mg prednisolone 10g/5mg/5mg Actions prolactin, minimum) and after 2 weeks introduce steroid replacement Endocrine testosterone hydrocortisone 20mg, 10mg, act as per Actions algorithm if Continue 10mg Refer to serum levels Complete immuno-Reduce hydrocortisone to endocrinology endocrine panel fall 10mg, 5mg, 5mg after 2 weeks therapy for advice/ including ACTH, Continue Continue weaning further prolactin. immunoprednisolone till stop but investigation testosterone therapy continue hydrocortisone Give emergency Give emergency replacement steroid advice steroid advice · Once stable on hydrocortisone and alert card and alert card replacement for 5-7 days Continue Continue commence thyroxine immunotherapy immuno- Recheck testosterone after 3 therapy weeks and replace if remains suppressed Urgent Endocrinology referral · Give emergency steroid advice and card Further emergency advice regarding hypophysitis is outlined in the SfE guidance If thyroid function is also compromised within a hypopitutary picture ensure cortisol is replaced

prior to commencement of thyroid replacement (see grade 1 hypothyriodism guidelines)

Having assessed the patient as per the guideline in the symptom management for adverse events it may be that referral to a specialist is required.

Respiratory	Dr. Kate Cusworth
-------------	-------------------

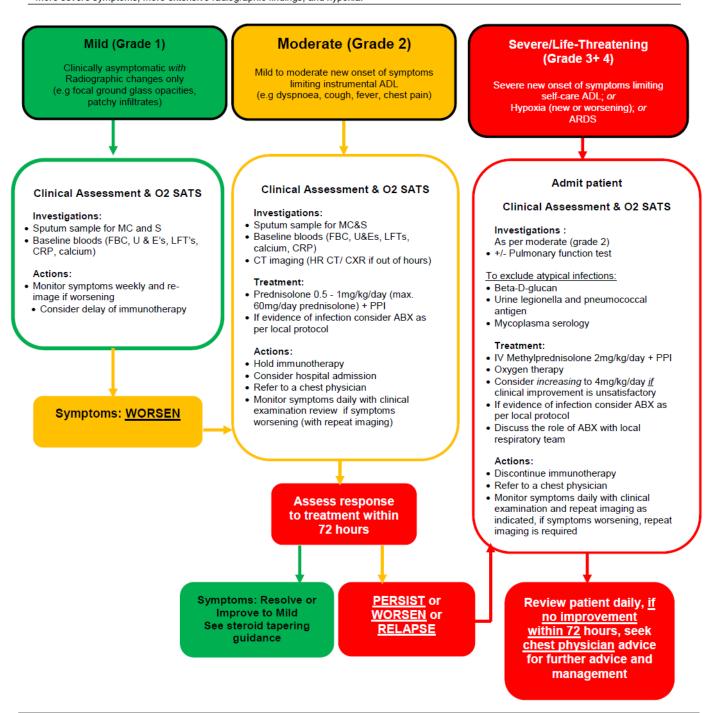
GUIDELINE FOR THE MANAGEMENT OF IMMUNE-RELATED ADVERSE REACTIONS FOLLOWING		
IMMUNOTHERAPY TREATMENT		
WAHT-CS-094 Page 12 of 29 Version 2.2		



THE CLATTERBRIDGE CANCER CENTRE NHS FOUNDATION TRUST

Immune-Related Adverse Event: Pneumonitis

Pulmonary irAEs have been observed following treatment with immunotherapy and have occurred after a single dose and after as many as 48 treatments. The frequency of pulmonary AEs may be greater with immunotherapy combination therapies than with monotherapy. The majority of cases reported were Grade 1 or Grade 2 and subjects presented with either asymptomatic radiographic changes (eg, focal ground glass opacities, patchy infiltrates) or with symptoms of dyspnoea, cough, or fever. Subjects with reported Grade 3 or Grade 4 pulmonary AEs were noted to have more severe symptoms, more extensive radiographic findings, and hypoxia.



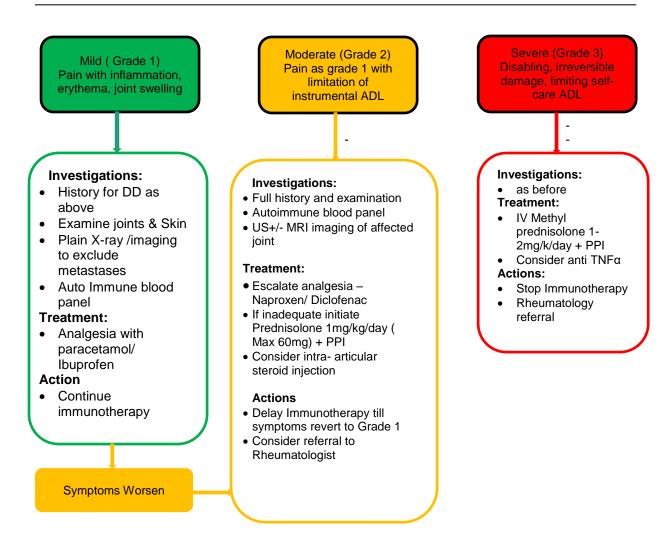
Interrupt SACT immunotherapy until discussed with Acute Oncology Team. Please contact <u>on-call oncology/haematology</u> <u>team</u> for advice. Ensure that Acute Oncology/Haematology team are informed of admission.



Adapted From ESMO Guidelines

Immune -Related Adverse Event: Arthralgia

Immunotherapy administration can result in joint pain without associated swelling. It may occur in conjunction with myalgia, a common adverse event. DD to consider include arthritis, PMR and myositis. Due to paucity of literature on the management of this AE, rheumatology advice should be sought if symptoms are not responding to steroids



Having assessed the patient as per the guideline in the symptom management for adverse events it may be that referral to a specialist is required.

Rheumatology Dr. Caroline Cardy

GUIDELINE FOR THE MANAGEMENT OF IMMUNE-RELATED ADVERSE REACTIONS FOLLOWING		
IMMUNOTHERAPY TREATMENT		
WAHT-CS-094 Page 14 of 29 Version 2.2		



Steroid tapering guidance

Many patients will receive moderate- to high-dose steroid therapy for their immune-related toxicity for several weeks. Length of tapering is usually dictated by the severity of the irAE. Regular monitoring during tapering is strongly advised as there is an increased risk of irAE recurrence.

Oral steroid tapering:

· Initiate corticosteroid taper over 3-6 weeks

Tapering quidance:

- . Monitor patient by telephone twice weekly during
- · Reduce prednisolone dose by 10mg every 3 days (as toxicity allows) until dose is 10mg/day.
- . Once steroid dose is 10mg/day, reduce by 5mg for 5 days then stop.

ALL PATIENTS SHOULD HAVE A 9AM CORTISOL CHECKED WITHIN THE 5-7 DAYS FOLLOWING COMPLETION OF THEIR STEROID TAPER

Intravenous steroid tapering:

- Corticosteroid taper over at least 3-6 weeks Tapering quidance:
- Continue IV methylprednisolone 2mg/kg/day for a total of 5 days then switch to oral prednisolone 60mg/day
- . If following a re-flare and reintroduction of IV steroids reduce to 1mg/kg/day of prednisolone PO for 3 days then commence taper. Upon discharge:
- . Monitor patient by telephone twice weekly during taper.
- Reduce prednisolone dose by 10mg every 5 days (as toxicity allows) until dose is 10mg/day.
- Once steroid dose is 10mg/day, reduce by 5mg for 5 days then stop

Supportive measures:

Hyperglycaemia:

A baseline HbA1c should be requested at steroid initiation and random afternoon blood sugar monitoring (BM) should be undertaken whilst on treatment. If new hyperglycemia is detected, Endocrinology advice should be sought (many patients will require short term insulin in this setting). Pre-existing diabetes may require escalation in oral hypoglycemic agents or insulin.

Insomnia:

This is the most common steroid-related side effect. Sleep hygiene counselling is important. Patients may require short-term use of zopiclone (benzodiazepines should only be considered in rare circumstances for a max 3-5 days)

Vitamin D and calcium levels should be taken at baseline and if low, replaced as appropriate. In patients on steroids for >3 months, or with pre-existing osteoporosis, a bone density scan and AdcalD3 and alendronate (or another bisphosphonate should be considered)

Infection:

In patients receiving the equivalent of prednisolone 25mg for ≥ 6 weeks PCP prophylaxis with co-trimoxazole (80/400mg Mon/Wed/Fri) should be considered

The oropharynx should be monitored for candidiasis and may require topical therapy such as Nystatin or oral fluconazole

If patients are on other immuno-modulatory agents e.g. Mycophenylate mofetil (MMF), consideration may be given to CMV prophylaxis with gancyclovir, especially if CMV IgG negative and lymphopenic.



5. ONGOING MANAGEMENT

Immunotherapy treatment should be withheld for patients suffering any grade 2 or above toxicity. The ongoing management will be co-ordinated by the consultant oncologist in charge of the patient's care together with the Immunotherapy CNS.

6. CONTACT NUMBERS FOR ADVICE

Acute Oncology Service 24 hours a day, 7	01905 760158 / 30049
days a week	
Acute Oncology Nurse Practitioners (Mon-	Ext 30048 WRH Bleep 398 or 491 Alex
Fri 0900-1700)	Bleep 0192
Oncology Consultant On-call (24 hours)	Via Switchboard

7. TRAINING

Oncology Consultant presentation to acute medical staff and oncology medical team.

Training for nursing staff covering OOH, is by the Immunotherapy CNS

Training regarding administration and management of side effects is also included in the annual chemotherapy update for nurses.

8. REFERENCES

Nivolumab Dosing Administration and Safety Guide (2016) Bristol-Myers Squibb Pembrolizumab Important Safety information to Minimise the Risk of Immune-Related Adverse Reactions (2016) Merck Sharp& Dohme

https://www.medicines.org.uk/emc/medicine/30602

https://www.medicines.org.uk/emc/medicine/30476

With Thanks for Nicola Jones UHB Chemotherapy lead for sharing Patient and GP letters https://www.clatterbridgecc.nhs.uk/professionals/guidance-1

With thanks to Trudy Guinan lead Immunotherapy Nurse at Clatterbridge Cancer Centre for permission to use the Clatterbridge guidelines for Immunotherapy toxicities.



9. MONITORING TOOL

Page/ Section of Key Document	Key control:	Checks to be carried out to confirm compliance with the policy:	How often the check will be carried out:	Responsible for carrying out the check:		Frequency of reporting:
	WHAT? All patients with immune-related reactions receive appropriate and timely management	Audit to monitor compliance with guidance	WHEN? After 6 months	WHO? Immunotherapy nurse / Lead Chemotherapy Nurse	WHERE? Haematology/Oncology directorate	WHEN? Annually

GUIDELINE FOR THE MANAGEMENT OF IMMUNE-RELATED ADVERSE REACTIONS FOLLOWING			
IMMUNOTHERAPY TREATMENT			
WAHT-CS-094 Page 17 of 29 Version 2.2			

Appendix 1 – Triage Tool

HOSPITAL NAME / DEPT:	U	CONS 24 HOUR TRIAGE LOG SHEET
Patient Details	Patient History	Enquiry Details
Name:	Diagnosis:	Date Time
Hospital no	Male Female	Who is calling?
	Tenace	
DOB	Consultant	representatives
Tel no	Has the caller contacted the advice	Contact no
141.17	line previously Yes No	Drop in Yes □ No □
Reason for call	-10//-	
(in patients own words)		
Is the patient on active treatm	ent? SACT Immunotherapy Radiother	apy ☐ Other ☐ Supportive ☐ No
State regimen.	Are they pa	art of a clinical trial Yes No
A STATE OF THE PARTY OF THE PAR		15-28 days Over 4 weeks
What is the patient's temperat	ure? CPlease note that hypothermia	is a significant indicator of sepsis)
		The state of the s
nas the patient taken any anti	-pyretic medication in the previous 4-6 hours	Yes No L
Does the patient have a centra	I line? Yes No Infusional pump in si	tu Yes 🔲 No 🗔
up to 12 months after	eceiving or have received IMMUNOTHERAPY may present with tr wards. If you are unsure about the patient's regimen, be cautious.	eatment related problems at anytime during treatme and follow triage symptom assessment.
	S. 15 . E 111.	
Arfvice 74 hour follow up	Accept Significant medical history	Current medication
Remember: two ambers equa	redl	
Fever - on SACT		
Chest Pain Dyspnoea/shortness of breath		
Performance Status		
Diarrhosa		
Constipation		
Urinary disorder Fever	A	ction Taken
Infection Nautea		
Naurea Vomiting		
Nausea Vomiting Oralistomatitis		
Nautea Vomiting Oralistomatitis Anoresia		
Nausea Vomiting Oral/stomatitis Anoresia Pain		
Nautea Vomitting Oralistomatitis Anorexia Pain Neurosensory/motor Confusion/cognitive disturbance		
Nautea Vomiting Oralistomastis Anorexia Pain Neurosensory/motor Confusion/cognitive disturbance Fatigue		
Nautea Vomiting Oralistomatitis Anorexia Pain Neurosensory/motor Confusion/cognitive disturbance Fatigue Rash		
Nautee Vomiting Oralistomatitis Anorexia Pain Neurosensory/motor Confusion/cognitive disturbance Fatigue Rash Bleeding		
Nautea Vomiting Oralistomatitis Anorexia Pain Neurosensory/motor Confusion/cognitive disturbance Fatigue Rash		
Nautea Vomiting Oralistomatitis Anorexia Pain Neurosensory/motor Confusion/cognitive disturbance Fatigue Rash Bleeding Bruising Ocular/exp problems Palmar Plantar syndrome		
Nautee Vomiting Oralistomstitis Anorexia Pain Neurosensory/motor Confusion/cognitive disturbance Fatigue Rash Bleeding Brusting Ocular/eye problems Palmar Piarrias syndrome Extravesetion		
Nautea Vomiting Oralistomatitis Anorexia Pain Neurosensory/motor Confusion/cognitive disturbance Fatigue Rash Bleeding Bruising Ocular/exp problems Palmar Plantar syndrome	Attending for accomment to	roluing toom contacted Ver 🖂 . No 🖺
Nautee Vomiting Oralistomatitis Anorexia Pain Neurosensory/motor Confusion/cognitive disturbance Fatigue Rash Bleeding Bruising Ocularityey problems Palmar Plentar syndrome Extravasation Other, please state:	Attending for assessment, re-	ceiving team contacted Yes \ No
Nausea Vomiting Oralistomatitis Anorexia Pain Neurosensory/motor Confusion/cognitive disturbance Fatigue Rash Bleeding Bruising Occular/eye problems Palmar Plantar syndrome Extravesation Other, please state: Triage practitioner		
Nausea Vomiting Oralistomatitis Anorexia Pain Neurosensory/motor Confusion/cognitive disturbance Fatigue Rash Bleeding Bruising Occular/eye problems Palmar Plantar syndrome Extravesation Other, please state: Triage practitioner	Attending for assessment, re	
Nausea Vomiting Oralistomatitis Anorexia Pain Neurosensory/motor Confusion/cognitive disturbance Fatigue Rash Bleeding Brusing Ocular/aya problems Palmar Plentar syndrome Extravasation Other, please state: Triage practitioner Signature		
Nausea Vomiting Oralistomatitis Anorexia Pain Neurosensory/motor Confusion/cognitive disturbance Fatigue Rash Bleeding Bruising Occular/eye problems Palmar Plantar syndrome Extravesation Other, please state: Triage practitioner		
Nausea Vomiting Oralistomatitis Anorexia Pain Neurosensory/motor Confusion/cognitive disturbance Fatigue Rash Bleeding Brusing Ocular/aya problems Palmar Plentar syndrome Extravasation Other, please state: Triage practitioner Signature		
Nausea Vomiting Oralistomatitis Anorexia Pain Neurosensory/motor Confusion/cognitive disturbance Fatigue Rash Bleeding Brusing Ocular/aya problems Palmar Plentar syndrome Extravasation Other, please state: Triage practitioner Signature		
Nausea Vomiting Oralistomatitis Anorexia Pain Neurosensory/motor Confusion/cognitive disturbance Fatigue Rash Bleeding Brusing Ocular/aya problems Palmar Plentar syndrome Extravasation Other, please state: Triage practitioner Signature		
Nausea Vomiting Oralistomatitis Anorexia Pain Neurosensory/motor Confusion/cognitive disturbance Fatigue Rash Bleeding Brusing Ocular/aya problems Palmar Plentar syndrome Extravasation Other, please state: Triage practitioner Signature		
Nautea Vomiting Oralistomatitis Anorexia Pain Neurosensory/motor Confusion/cognitive disturbance Fatigue Rash Bleeding Brusing Ocular/eye problems Palmar Plantar syndrome Extravasation Other, please state: Triage practitioner Signature Follow Up Action Taken:	Print Designat	
Nausea Vomiting Oralistomatitis Anorexia Pain Neurosensory/motor Confusion/cognitive disturbance Fatigue Rash Bleeding Brusing Ocular/aya problems Palmar Plentar syndrome Extravasation Other, please state: Triage practitioner Signature	Print Designat	

Appendix 2 - Patient letter for Immunotherapy

PATIENT LETTER

Please always carry this letter with you and show it to any Healthcare professional you are seen by

rease always carry this letter with you and show it to any recatilled a professional you are seen by.
Dear (Affix Sticker)
You are due to commence Immunotherapy under the care of
The Immunotherapy drug/s name is/are
Immunotherapy can cause serious side effects.
If you experience any of the following symptoms you should contact the Acute Oncology service from the alert card given to you. Diarrhoea (more than 3 episodes of diarrhoea in a 24 hour period) or blood or mucus in stools, cramps o stomach pains Cough / Acute shortness of breath developed over a few days Extreme tiredness alongside dizziness Loss of limb movement There is a risk for developing Sepsis which could be life threatening. In case you develop any of the symptoms mentioned below, you should contact the Acute oncology service from the alert card. Fever / temperature Any sign of infection Shivers, shakes or flu like symptoms Excessive bruising or bleeding from anywhere
 Generally feeling dreadful for no specific reason Severe vomiting, diarrhoea or exhaustion
The acute oncology emergency number is 01905 760158.
Thank you
Signed Name
Title

Appendix 3 – SACT Information for GP
Systemic Anti-Cancer Treatment information for GP'S
Dear Doctor
RE:
The above patient is due to commence (Regimen)
This is an immune therapy and will be given on Ward On (date)
under the care of Dr

Our main concern about patients receiving immune therapy relates to the risk of life threatening auto-immunity e.g. colitis, rash, hormone failure including pan-hypopituitarism, hepatitis, neuritis and pneumonitis.

Patients reporting adverse events including diarrhoea, abdominal pain, widespread rash, feeling generally unwell or more than usually fatigued should be assessed urgently.

Specialist advice should be sought immediately via Acute Oncology Service

On- 01905760158

24hrs a day.

ALL MEDICAL ENQUIRIES SHOULD GO THROUGH THE ON-CALL ONCOLOGIST via VIA SWITCHBOARD ON: 01905 763333

Please note for up to 6-18 months on completion of Immunotherapy a patient can develop an Immune related adverse event.

Steroids can affect the efficacy of this treatment please contact the oncall oncologist if this is needing to be considered for your patient.

GUIDELINE FOR THE MANAGEMENT OF IMMUNE-RELATED ADVERSE REACTIONS FOLLOWING			
IMMUNOTHERAPY TREATMENT			
WAHT-CS-094 Page 20 of 29 Version 2.2			

Fold line -->

Appendix 4

blease coutact the Acrite objects and seek on the caverse of the card.

Within Worcester Pales:

Within Worcester Acrite Hospitals Trust please refer to management dysfunction, hepatotoxicity, neuropathy, pmeumoritis, renal dysfunction, hepatotoxicity neuropathy, r

Outside of card

Patient

Contact Telephone Number

On Presentation to the hospital, please follow the Management Instructions inside this card.

Acute Oncology Service

01905 760158

24hrs a day

URGENT

You must contact the acute oncology service immediately if you experience any of the following:

- Diarrhoea or blood or mucus in stools, cramps or stomach pains -more than 3 episodes in a 24 hour period
- Cough / Acute shortness of breath -developed over a few days
- Extreme tiredness alongside dizziness
- Muscle weakness, pins & needles

Fold line -->

Clinician IMMUNE RELATED ADVERSE REACTIONS MANAGEMENT

Contact the On-Call Oncologist Immediately

Immune related adverse reactions can occur at anytime during treatment and up to 12 months after treatment has completed.

Please attach ID label or write details.

Δridress

.

Inside of card

GUIDELINE FOR THE MANAGEMEN	T OF IMMUNE-RELATED	ADVERSE REACTIONS FOLLOWING		
IMMUNOTHERAPY TREATMENT				

WAHT-CS-094 Page 21 of 29 Version 2.2

Appendix 5

Or

Immunotherapy Pathway, Emergency Department presentation

Emergency Department presentation of patient receiving Immunotherapy, a. Patient presents themselves without informing the AOS service. b. Patient after phoning chemotherapy helpline has been advised to attend ED. AOS manage toxicity with advice from AOS Dr. or Immunotherapy CNS If patient requires transfer to Laurel 2/3, prior discussion with AOS service or oncall Dr. required. Seen in AOS bay managed by AOS Transfer from ED to outlier ward Transfer to Laurel 2/3 email Immunotherapy nurse, advice can be AOS continue to manage patient. CNS who can visit patient on the ward. sought from Immunotherapy CNS Discussion with Immunotherapy CNS for take over of care. Discharged home email Immunotherapy

GUIDELINE FOR THE MANAGEMENT OF IMMUNE-RELATED ADVERSE REACTIONS FOLLOWING				
IMMUNOTHERAPY TREATMENT				
WAHT-CS-094 Page 22 of 29 Version 2.2				

CNS if symptom management requires monitoring as an outpatient, including follow up phone call or outpatient appointment. Inform CNS if steroids have been

commenced for managing the tapering of

steroids.

Immunotherapy Pathway, Clinic presentation

Seen by the Consultant in clinic or in Nurse led clinic.



Consultant to decide if toxicities are able to managed as an outpatient via Immunotherapy CNS.

Or

Need s admission.

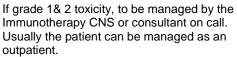
If admission required Consultant

- Informs the RMO if admission to ED /ward required.
- Informs the AOS if patient needs to go the AOS bay for management by AOS.
- If patient is able to be admitted to a bed On Laurel 2/3 Dr's on the ward informed of admission who will then clerk patient.

Immunotherapy pre proceed Toxicity

Toxicity symptoms discovered due to Preproceed contact.







If toxicities are grade 3 & above CNS to inform the AOS service with advice from the Immunotherapy CNS, Consultant oncall or AOS Dr.

AOS to manage patient either in AOS Bay, or ED depending on where it is appropriate.

Supporting Document 1 – Equality Impact Assessment form

To be completed by the key document author and included as an appendix to key document when submitted to the appropriate committee for consideration and approval.

Please complete assessment form on next page;





Herefordshire & Worcestershire STP - Equality Impact Assessment (EIA) Form Please read EIA guidelines when completing this form

<u>Section 1</u> - Name of Organisation (please tick)

Herefordshire & Worcestershire STP	Herefordshire Council	Herefordshire CCG
Worcestershire Acute Hospitals NHS Trust	Worcestershire County Council	Worcestershire CCGs
Worcestershire Health and Care NHS Trust	Wye Valley NHS Trust	Other (please state)

Name of Lead for A	Activity		
Details of individuals	Name	Job title	e-mail contact
completing this assessment			
Date assessment completed			

Section 2

Activity being assessed (e.g. policy/procedure, document, service redesign, policy, strategy etc.)	Title	:	
What is the aim, purpose and/or intended outcomes of this Activity?			
Who will be affected by the development & implementation of this activity?		Service User Patient Carers	Staff Communities Other

GUIDELINE FOR THE MANAGEMENT OF IMMUNE-RELATED ADVERSE REACTIONS FOLLOWING				
IMMUNOTHERAPY TREATMENT				
WAHT-CS-094 Page 25 of 29 Version 2.2				

			 T. C.
		Visitors	
Is this:	□N	eview of an existing ew activity lanning to withdraw of	uce a service, activity or presence?
What information and evidence have you reviewed to help inform this assessment? (Please name sources, eg demographic information for patients / services / staff groups affected, complaints etc.			
Summary of engagement or consultation undertaken (e.g. who and how have you engaged with, or why do you believe this is not required)			
Summary of relevant findings			

Section 3

Please consider the potential impact of this activity (during development & implementation) on each of the equality groups outlined below. Please tick one or more impact box below for each Equality Group and explain your rationale. Please note it is possible for the potential impact to be both positive and negative within the same equality group and this should be recorded.

Equality Group	Potential	Potential	Potential	Please explain your reasons for any
	positive impact	<u>neutral</u> impact	negative impact	potential positive, neutral or negative impact identified
Age				
Disability				
Gender Reassignment				
Marriage & Civil Partnerships				
Pregnancy & Maternity				
Race including Traveling Communities				
Religion & Belief				
Sex				
Sexual Orientation				

GUIDELINE FOR THE MANAGEMENT OF IMMUNE-RELATED ADVERSE REACTIONS FOLLOWING				
IMMUNOTHERAPY TREATMENT				
WAHT-CS-094 Page 26 of 29 Version 2.2				

Equality Group	Potential positive impact	Potential neutral impact	Potential negative impact	Please explain your reasons for any potential positive, neutral or negative impact identified
Other Vulnerable and Disadvantaged				
Groups (e.g. carers; care leavers; homeless; Social/Economic deprivation, travelling communities etc.)				
Health				
Inequalities (any preventable, unfair & unjust differences in health status between groups, populations or individuals that arise from the unequal distribution of social, environmental & economic conditions within societies)				

Section 4

What actions will you take to mitigate any potential negative impacts?	Risk identified	Actions required to reduce / eliminate negative impact	Who will lead on the action?	Timeframe
How will you monitor these actions?		·	1	1
When will you review this				
EIA? (e.g in a service redesign, this EIA should be revisited regularly throughout the design & implementation)				

Section 5 - Please read and agree to the following Equality Statement

1. Equality Statement

- 1.1. All public bodies have a statutory duty under the Equality Act 2010 to set out arrangements to assess and consult on how their policies and functions impact on the 9 protected characteristics: Age; Disability; Gender Reassignment; Marriage & Civil Partnership; Pregnancy & Maternity; Race; Religion & Belief; Sex; Sexual Orientation
- 1.2. Our Organisations will challenge discrimination, promote equality, respect human rights, and aims to design and implement services, policies and measures that meet the diverse needs of our service, and population, ensuring that none are placed at a disadvantage over others.
- 1.3. All staff are expected to deliver services and provide services and care in a manner which respects the individuality of service users, patients, carer's etc, and as such treat them and members of the workforce respectfully, paying due regard to the 9 protected characteristics.

GUIDELINE FOR THE MANAGEMENT OF IMMUNE-RELATED ADVERSE REACTIONS FOLLOWING				
IMMUNOTHERAPY TREATMENT				
WAHT-CS-094 Page 27 of 29 Version 2.2				

Signature of person completing EIA	
Date signed	
Comments:	
Signature of person the Leader	
Person for this activity	
Date signed	
Comments:	

























Supporting Document 2 – Financial Impact Assessment

To be completed by the key document author and attached to key document when submitted to the appropriate committee for consideration and approval.

	Title of document:	Yes/No
1.	Does the implementation of this document require any additional Capital resources	
2.	Does the implementation of this document require additional revenue	
3.	Does the implementation of this document require additional manpower	
4.	Does the implementation of this document release any manpower costs through a change in practice	
5.	Are there additional staff training costs associated with implementing this document which cannot be delivered through current training programmes or allocated training times for staff	
	Other comments:	

If the response to any of the above is yes, please complete a business case and which is signed by your Finance Manager and Directorate Manager for consideration by the Accountable Director before progressing to the relevant committee for approval