UKONS
Oncology Nursing Society

Oncology/Haematology Risk Assessment Tool

Primary Healthcare Professionals Version

In partnership with Macmillan Cancer Support.

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Contents

Introduction

Macmillan has worked in partnership with health care professionals to develop an Oncology/ Haematology Risk Assessment Tool for Primary Healthcare Professionals.

This reliable, easily used tool ensures that patients who suffer from complications/toxicities relating to systemic anti-cancer treatment (including chemotherapy) are identified and managed appropriately in order to achieve the best possible outcome.

The tool is a guideline for best practice in the appropriate treatment and management of patients with specific conditions; it should be used in conjunction with the health care practitioner's judgement.

This document details:

- the background and reasons for using such a risk assessment tool
- the risk assessment process
- instructions for use

You should read this document carefully before using the assessment tool.

Background and Reasons for Use

The use of systemic anti-cancer treatment has expanded markedly in recent years. The Chemotherapy Intelligence Unit of the National Cancer Intelligence Network Cumulative Data Completeness Report 2015-2016 reports that 182,811 patients in England commenced treatment, with over 959,605 cycles of treatment being administered[1].

The number of regimes available for individual tumour sites has increased and as new agents have been developed, many more tumour sites are now suitable for treatment. Systemic anti-cancer treatment (SACT) has changed in nature due to a better understanding of molecular biology. Besides traditional cytotoxic therapy (chemotherapy) there are now targeted therapies such as monoclonal antibodies (e.g. Herceptin), small molecules (e.g. Glivec) and most recently immunotherapy (e.g. Yervoy).

Although SACT will result in adverse effects for the majority of patients, these effects can usually be alleviated with careful management and support. However all patients should be closely monitored if they show any signs of toxicity or complications. Deterioration may be rapid and the consequences of delay life-threatening, as demonstrated in 2008 National Confidential Enquiry into Patient Outcome and Death (NCEPOD) report[2]. This reviewed patient deaths that occurred within 30 days of receiving SACT, and a number were found to be related to complications and toxicities caused by the treatment they had received. Amongst this group were patients who either delayed contacting the oncology team for advice, or who had not been identified as an emergency by a member of the primary care team.

This group of patients should be managed with caution and it should be assumed that they are at **high risk of developing potentially life threatening complications** until proven otherwise; the same urgency of approach that is promoted for suspected Myocardial Infarction or Meningitis should be adopted.

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1 The Chemotherapy Intelligence Unit of the N C I N, Cumulative Data Completeness Report 2015-2016 http://www.chemodata-set.nhs.uk/reports/

2 NCEPOD, Systemic Anti-Cancer Therapy: For better, for worse? (2008). http://www.ncepod.org.uk/2008sacttoolkit.html (last accessed 14.07.2017.)

Both the NCEPOD study[2] and Royal College of Physicians report 'Cancer patients in crisis[3] responding to urgent needs', recognised that health professionals in both the primary and secondary care settings, did not always have specialist knowledge and experience of chemotherapy patients. As a result, they did not always recognise the significance of commonly presenting symptoms in this high-risk group of patients.

The recognition and recording of toxicities/complications is also vital in the ongoing management of the patient. They may require a dose modification or delay in treatment, to minimise the risk of an adverse event on a subsequent treatment cycle.

All patients receiving systemic anti-cancer treatment are provided with emergency contact numbers for a 24-hour advice line. They are asked to contact this number if they are worried about any symptoms or problems that arise. Though the majority of patients do contact the advice lines as directed, some may not recognise the significance of symptoms or are not sure whom to contact. This group of patients may instead present to a number of health care professionals: accident and emergency, general practitioner, community nursing team or community pharmacists.

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3 Royal College of Physicians (2012), Cancer patients in crisis: responding to urgent needs. https://www.rcr.ac.uk/publication/cancer-patients-crisis-responding-urgent-needs (last accessed 14.07.2017)

The Oncology/Haematology Risk Assessment Tool for Primary Healthcare Professionals

Working with Macmillan GPs, we have developed a risk assessment tool that can be used by primary care health care professionals to highlight patients who are at risk of complications of cancer treatment and direct them to the specialist teams for further assessment and management. The tool also prompts the user to identify and record their local advice line contact numbers and ensure they are easily accessible if needed. Advice lines may also be called help lines or hot lines depending on local policy.

This tool has been adapted from the United Kingdom Oncology Nursing Societies 24 Hour Triage Tool, which was launched in 2010. It is widely used across the country for oncology/haematology advice line triage services.

The adapted tool acknowledges the lower threshold for concern that should be applied to patients who are at risk of developing complications due to their disease or treatment.

The assessment process is based on the patient's presenting symptoms and is not reliant on knowing current treatment and medical history. Extensive knowledge of specialist treatments is not needed. The symptoms and conditions covered by the tool are not exhaustive; patients may report problems/symptoms that are not included in the assessment tool. In this situation the user is advised to seek specialist advice and guidance.

The tool is a guideline which makes recommendations for best practice. These are not binding and should be seen as suggestions and or advice. They do not replace clinical judgment or remove autonomy[4].

Patient Group

The assessment tool and risk assessment process can be applied to oncology/haematology patients who:

- have received systemic anti-cancer treatment
- have received radiotherapy
- are at risk of disease-related immunosuppression

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4 *Scottish Intercollegiate Guidelines Network (SIGN). SIGN 50: a guideline developer's handbook. Edinburgh: SIGN; 2015. (SIGN publication no. 50). [November 2015]. Available from URL: http://www.sign.ac.uk/sign-50.html (last accessed 14.07.2017)*

Risk Assessment Process Instructions for Use

The risk assessment tool is based on the Common Terminology Criteria for Adverse Events (CTCAE V4.3)[5]. This is a descriptive terminology widely utilised for measuring side effects for patients receiving systemic anti-cancer treatment or radiotherapy.

The assessment tool applies a Red, Amber or Green risk level to the patients presenting symptom/s and grade.

A symptom that is graded RED is classified as urgent and the advice line should be contacted immediately. Patients may require urgent assessment in a suitable clinical area that provides access to investigation and treatment facilities. The advice line team will arrange assessment and/or further monitoring for the patient if required.

Exceptions:

- A number of the RED presentations give directions to bypass the advice line and refer directly to accident and emergency: see chest pain, bleeding and severe infection.
- If, in the user's view, the patient is too unwell to wait for telephone advice and requires urgent review and management, then refer directly to accident and emergency.

A symptom that is graded AMBER should be discussed with the advice line as soon as possible.

A symptom that is graded GREEN should be monitored closely by the patient. If it worsens or does not resolve, then they should contact the advice line without delay.

Tips for Users

1. Patients will often report the symptom that is the most troublesome to them but neglect to mention other symptoms that may be more significant to the healthcare professional. Therefore, once the patient's initial concern has been graded, the user should use the tool as a checklist to ensure that other problems are not missed.
2. If you feel that the guideline is not appropriate to an individual situation, contact the advice line for guidance.
3. Be aware that the timeframe in which patients may experience side effects varies according to the type of treatment they have received. For some agents, for example immunotherapies, side effects can start many months after treatment has begun and can start only after treatment has in fact finished.
4. Be cautious. If in doubt contact the advice line.
5. Feel free to contact the advice line yourself or provide facilities for the patient to speak to the advice line team: patients should be encouraged to contact the advice line if required, before ending the consultation.

Terms and Conditions for Use

The Oncology/Haematology Risk Assessment Tool for Primary Healthcare Professionals is a guideline and should be approved for use by the appropriate organisational governance group, prior to implementation.
The governance responsibility for the use of the tool rests wholly with the service provider.
The content of the toolkit will be regularly reviewed and made available on both the Macmillan and UKONS websites. Other parties are permitted to make use of the content within the toolkit and append locally applicable material. However, Macmillan Cancer Support will not quality check these amendments. In addition, we will not endorse, support or otherwise accept any liability in relation to any amended versions of the toolkit.

5 *Common Terminology Criteria for Adverse Events (CTCAE) Version 4.0: May 28, 2009 (v4.03: June 14, 2010) https://evs.nci.nih.gov/ftp1/CTCAE/CTCAE_4.03_2010-06-14_QuickReference_8.5x11.pdf (last accessed 14.07.2017)*

Please note; the toolkit aims to share learning and good practice, but it is, of necessity, brief in nature.

Information contained in the toolkit is not a substitute for your own clinical judgment or taking specialist professional advice in appropriate circumstances.

Macmillan Cancer Support do not accept any liability for loss of any type caused by reliance on the information in this toolkit–in so far as any such liability cannot be excluded by law.

Step by Step Process

It is vitally important that the process is methodical and thorough in order for it to be useful and provide an accurate risk assessment. There are a number of questions to ask and information that will need to be collected, to make sure that the correct advice is given.

Oncology/Haematology Treatment Toxicity Risk Assessment Tool - Primary Healthcare Professionals (June 2017)

UKONS Oncology Nursing Society

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BACKGROUND

Primary Care Risk Assessment Tool for Oncology/Haematology Patients who are:

- **Receiving or received systemic anti-cancer therapies.**
- **Receiving or recently received radiotherapy.**
- **At risk of disease related immunosuppression.**

It is important that the side effects of treatment are not underestimated and that the significance of symptoms is recognised.

This evidence-based risk assessment tool grades the presenting symptoms and advises action accordingly using a RAG system. It is important that the significance of lower level amber toxicities are recognised.

Systemic anti cancer therapy is an overarching term that includes cytotoxic chemotherapy, immunotherapy, monoclonal antibodies and new novel therapies.

RISK ASSESSMENT PROCESS INSTRUCTIONS FOR USE

All patients receiving Systemic Anti-Cancer Therapy are provided with a 24 Hour Advice Line telephone number. We recommend that you use this tool to risk assess any symptom the patient mentions to you. Patients might only report symptoms that are most worrying to them,and not mention others that may be significant. It is very helpful to use the risk assessment as a quick checklist to identify any potential problems.

If the patient scores **RED** or **AMBER** for any symptom you should contact the **24 Hour Advice Line** immediately for a full triage assessment unless **URGENT** referral to A&E is advised.

Patients may require urgent assessment in a suitable clinical area that provides access to investigation and treatment facilities. The advice line team will arrange assessment and/or further monitoring for the patient if they feel it is required.

Please be aware that the period of time that patients may experience post treatment side effects/complications may vary according to the treatment they have received, and can be as late as 12 months post treatment.

Patients may present with problems other than those listed below, be cautious, and if in doubt about anything contact the advice line.

ADVICE LINE NUMBER

Advice line numbers will differ across the country - contact your oncology or acute oncology service to identify your local number before adding here.

The information contained in this guideline is a consensus of the development and consultation group's expert opinions on current treatment. Clinicians using this guideline are expected to use independent clinical judgment in the context of the presenting clinical circumstances to determine any patient's care or treatment.

Please note: If patient is having or has received immunotherapy within the last 12 months or is taking Capecitabine, refer to advice line for review. Please ask patient to delay any oral treatment until they have had advice line review.

TOXICITY	If your patient scores RED or AMBER for any toxicity you should contact the 24 Hour Advice Line immediately for a full triage assessment.			
Fever and/or generally unwell AND received systemic anti-cancer therapy (chemotherapy oral or I.V.) within the last 6 to 8 weeks, or is at risk of disease related immunosuppression.	If temperature is > 37.5˚C or < 36˚C or generally unwell, contact telephone advice line for URGENT assessment. ***Risk of neutropenic sepsis.*** ALERT - Patients on steroids/analgesics or who are dehydrated, may not present with pyrexia but may still have infection. ***If in doubt phone for advice.***			
Fever In patients who have **NOT** received oral or I.V systemic anti-cancer therapy within the last 6 weeks or are **NOT** at risk of disease related immunosuppression.	No fever, 36.0 ˚C - 37.4 ˚C		> 37.5 ˚C - 38 ˚C	> 38 ˚C - 40 ˚C
Anorexia How much are they eating and drinking? Any recent weight loss? Any contributory factors e.g. diarrhoea, vomiting, nausea or mucositis? If yes, see below for specific problem.	None or no change from normal.	Loss of appetite without alteration in eating habits.	Oral intake altered without significant weight loss or malnutrition.	Oral intake altered in association with significant weight loss/ malnutrition. Possible life threatening complications e.g collapse.
Bleeding Is it a new problem? Is it continuous? What amount? Where from? Is the patient on anticoagulants or antiplatelets? If your clinical assessment gives concern about active blood loss, arrange URGENT A&E attendance for medical assessment.	None or no change from normal.	Mild, self-limited controlled by conservative measures.	Uncontrollable haemorrhage - if haemodynamically unstable and/or large volume blood loss - ***consider 999***	
Bruising Is it a new problem? Is it local/generalised? Is there any trauma involved?	None or no change from normal.	Petechiae/bruising, localised.	Moderate petechia/purpura. Generalised bruising.	Generalised petechia/purpura. Generalised bruising.
Chest pain Onset? What makes it worse? Radiation? Any cardiac history?	None or no change from normal.	***URGENT A&E attendance for medical assessment - 999.*** A number of chemotherapy drugs are cardiotoxic, there is also an increased risk of pulmonary embolism in this group of patients. Urgent assessment is recommended.		
Confusion/cognitive disturbance Is this a new symptom? Is it getting worse & when did it start? Is it constant? Has there been a recent change in medication? Is it associated with any other symptom? If yes, please see specific symptom?	None or no change from normal.	Mild disorientation not interfering with normal activity. Slight decrease in level of alertness.	Moderate disorientation and/or cognitive disability limiting normal activity.	Severe cognitive disability and /or confusion; severely limiting activity/function. Altered level of consciousness - loss of conciousness. ***999 - urgent A&E assessment.***
Constipation How long since bowels opened? What is normal? Any abdominal pain/ vomiting? Has the patient taken any medication such as opiates? Consider obstruction and/or perforation.	None or no change from normal.	Mild - no bowel movement for 24 hours over pre-treatment normal. Advice - Dietary advice, increase fluid intake, review supportive medication.	Moderate - no bowel movement in last 48 hours over pre-treatment normal.	Severe - no bowel movement in last 72 hours or more over pre-treatment normal.
Diarrhoea How many days has this occurred for? How many times in a 24 hour period? Any blood or mucous in stool? Has the patient taken any anti-diarrhoeal medication? Does the patient have any abdominal pain/discomfort? For how long? See specific toxicity for pain if applicable.	None or no change from normal.	Increase of up to 3 bowel movements a day over pre-treatment movements or mild increase in ostomy output.	Increase of 4 or more episodes a day over pre-treatment normal or moderate increase in ostomy output. Nocturnal or new incontinence. Moderate to severe cramping. Bloody diarrhoea.	
	Patients who are receiving or have received immunotherapy in the previous 12 months are at risk of treatment related colitis and should be managed promptly. Always contact the advice line.			
Urinary Disorder Is this a new problem? Is there any change in urine colour? Any blood in the urine? Any new incontinence, frequency or urgency? Are they passing normal amounts? Drinking normally? Thirsty? Consider hypercalcaemia.	None or no change from normal.	Mild to moderate symptoms, with an increase in frequency, urgency, dysuria or nocturia. Some reduction in output.	Severe symptoms with severe reduction in urine output. Possible retention/obstruction. New incontinence. New or increasing haematuiria.	
Dyspnoea/shortness of breath Is it a new symptom? Is dyspnoea worsening? Is there any chest pain? - link to specific toxicity. What can the patient do? (Alteration in performance status.) Consider SVCO / Anaemia / Pulmonary Embolism / Pneumonitis etc.	None or no change from normal.	New onset shortness of breath with moderate exertion.	New onset shortness of breath on minimal exertion and / or shortness of breath at rest.	
Extravasation - drug leakage around infusion site or along infusion pathway Has the patient got pain, soreness or ulceration around or along the infusion pathway/ injection site/central venous catheter?	None.	History of receiving intravenous infusion via central venous line or peripheral cannula with pain, burning, soreness and/or inflamation or swelling around or along infusion site pathway. Certain chemotherapy drugs can cause long term severe tissue damage if extravasation occurs.		
Infection - what is the patients temperature? if abnormal see fever above. Patients who are receiving chemotherapy or are at risk of immunosuppression that have any signs/symptoms of infection, should be referred to the advice line for assessment.	None.	Generally well with localised signs of infection.	Generally unwell with signs/symptoms of infection. ***If there are signs of severe symptomatic infection consider possible life threatening sepsis and dial 999 for urgent A&E assessment.***	
Nausea and/or Vomiting How many days/episodes? What is the patient's oral intake? Is the patient taking antiemetics as prescribed? Assess patient's urinary output. Does the patient have constipation or diarrhoea? (See specific toxicity)	None.	Mild symptoms - able to eat/drink with reasonable intake and/or 1 episode of vomiting in 24 hours. ***Advice - review antiemetics and ensure patient is taking as prescribed.***	Can eat/drink but intake significantly decreased and/or 2-5 episodes of vomiting in 24 hours.	No significant intake and/or 5 or more episodes of vomiting in 24 hours.
Neurological symptoms (sensory and/or motor) When did the problem start? Is it continuous? Is it getting worse? Is it affecting mobility/function? Any constipation or urinary or faecal incontinence? Does the patient have back pain? Consider spinal cord compression.	None.	Any of the following signs or symptoms - mild parasthesia, subjective weakness with no objective findings, back pain.	Mild or moderate sensory loss, moderate parasthesia, mild weakness with no loss of function with or without back pain.	Severe sensory loss, parasthesia or weakness that interferes with function with or without back pain. Any evidence of paralysis. ***Consider 999 - treat as unstable spine.***
Oral/Stomatitis - Sore Mouth How many days? Is there evidence of mouth ulcers? Is there evidence of infection? Are they able to eat/drink? Assess patient's urinary output.	None.	Painless ulcers, erythema, mild soreness, able to eat/drink. ***Advice - use mouthwash as recommended.***	Painful erythema, oedema or ulcers but can eat/drink.	Painful erythema, difficulty with eating and drinking and/or mucosal necrosis. Patient may require parenteral or enteral support.
Pain Is it a new problem? Where is it & when did it start? Any analgesia? Consider thrombosis - any swelling/redness? Back pain - consider spinal cord compression. Headache - consider brain metastases.	None or no change from normal.	Mild pain. Not interfering with function. ***Advice - analgesia review.***	Moderate pain. Pain interfering with function and/or daily activities.	Severe pain that may be disabling and/or interfering with activities of daily living.
Red hands and/or feet (palmar - plantar syndrome) This may be a side effect of certain chemotherapy treatments and requires specific action to be taken.	None.	Numbness, tingling, erythema or swelling of hands and/or feet, with or without pain.		Moist desquamation, ulceration, blistering and severe pain.
Performance status and/or Fatigue Has there been a recent change in performance status/activities of daily living? How many days has this occurred for? Any other associated symptoms? If yes, see specific symptom.	No recent change from patients normal.	Symptomatic but completely ambulant. Increased fatigue but not affecting normal activities. Ask the patient to discuss this with their key worker. ***N.B. If receiving or received immunotherapy then please see below.***	Symptomatic, but ambulatory and capable of all self care, but unable to carry out any work activities. Up and about more than 50% of waking hours. Moderate or severe fatigue causing difficulty or loss of ability to perform some activities.	Symptomatic, capable of only limited self care, confined to bed for more than 50% of waking hours or completely bed or chair bound. Disabling fatigue or bedridden.
	Patients who are receiving or have received immunotherapy in the previous 12 months are at risk of treatment related endocrinopathies, any new or increasing fatigue should be investigated. Please contact the advice line.			
Rash Is the patient systemically unwell? Is it localised or generalised? How long has it been there? Any signs of infection, such as pus or pyrexia? Is it itchy? For haematology patients, contact haematology team.	None or no change from normal.	Rash covering less than 10% of the body surface (mild) with or without other symptoms, pruritis, burning, tightness.	Rash covering greater than 10% of the body surface area: with or without symptoms. Or bleeding with or without trauma. Or signs of infection. Or generally unwell.	
Ocular/eye problems Any pain, redness, visual disturbance or discharge.	None or no change from normal.	Mild symptoms not interfering with function.	Moderate to severe symptoms, interfering with functions or any visual disturbance.	

References

1. The Chemotherapy Intelligence Unit of the N C I N, Cumulative Data Completeness Report 2015-2016 http://www.chemodataset.nhs.uk/reports/
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