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Acute care toolkit 7

Acute oncology on the acute medical unit

October 2023

Dr Carys Phillips

SpR Acute Medicine with an interest in Acute Oncology, Wales

Cardiff and Vale University Health Board

Declaration for Carys Phillips

I have no financial interests or relationships to disclose with regards to the subject matter of this presentation

I’m not an oncologist!

Aims of this presentation

- Introduce the new RCP Acute care toolkit for Acute Oncology
- Highlight why it is needed
- Explain how the toolkit can be helpful
- Go through the key messages from the toolkit

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Who should read this toolkit?

This toolkit aims to support acute and general medical clinicians caring for patients with cancer who have been admitted to acute care. It outlines key presentations, pathways and complications in acute oncology. It provides service recommendations for acute hospitals and acute oncology services.

All physicians should also be clear on the meaning and use of terms used in oncology (see Appendix).

Background

- Around 15% acute medical admissions are for cancer/cancer related problems
- Many regions have separate Oncology centres and therefore no on site Oncologists in acute hospitals
- These patients can be complex and unwell, therefore daunting for the general physician
- Cancer treatment has progressed rapidly and “novel” treatments are becoming more common - but general physicians may not have heard of the drugs
- New treatments have led to new toxicities with different managements to “standard” chemotherapy
- Changing prognosis of certain cancers with new treatments can be challenging
- Front door pressures can lead to long waits in ED/AMU

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The essentials of acute oncology

Authors: Kieran Palmer,[A] Emily Wang,[B] Rakesh Mattu[C] and Karen Tipples[D]

ABSTRACT

The general medical physician will often encounter patients who develop acute complications of t
or anti-cancer treatment. Here we pr
of emergency solid tumour oncology
management of these patients.

Introduction

Acute oncology describes a systematic
investigation and management of pati
complications of their cancer diagnosis

spinal stability. In patients with no known cancer diagnosis, full

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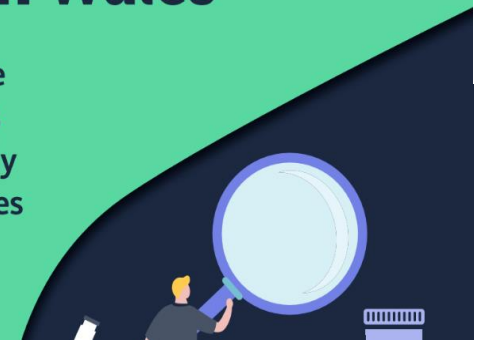
Cancer care at the front door

The future of acute oncology in Wales

Supporting healthcare professionals in Wales to develop high-quality acute oncology services

January 2023



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Call the medical registrar

Thursday 14 September 2023

The challenges and rewards of being the medical registrar

9.30am	Welcome **Dr Alastair Gilmore,** RCP deputy registrar; consultant physician in acute medicine, Wirral University Teaching Hospital NHS Foundation Trust	
9.35am	Session 1 – Chair: Dr Alastair Gilmore	
	Opening plenary talk: Are doctors superheroes? Dr Sarb Clare, consultant in acute medicine, deputy medical director, Sandwell and West Birmingham NHS Trust	
	Panel discussion Dr Sarb Clare Dr Sacha Moore Dr Gney Mehta	
10.20am	10-minute comfort break	
10.30am	Session 2 – Chair: Dr Mariyam Adam RCP Trainees Committee representative, Mersey	Session 3 – Chair: Dr Nicola Maddox RCP Trainees Committee representative, Peninsula
	Cardiology on the acute take Dr Holly Morgan, cardiology medical registrar (ST5), Guy's and St Thomas' NHS Foundation Trust	**Biologics in severe asthma, a new world in asthma treatment** Professor Dinesh Saralaya, consultant respiratory physician, Bradford Teaching Hospitals NHS Foundation Trust
	These bleeding on-calls ... Dr Nuru Noor, clinical research fellow in gastroenterology, Cambridge University Hospitals NHS Foundation Trust	**NIV essentials** Dr Sinan Eccles, consultant in respiratory medicine, Cwm Taf Morgannwg University Health Board
	Acute oncology emergencies with a focus on immunotherapy Dr Ricky Frazer, consultant medical oncologist, Velindre University NHS Trust	**Clinical toxicology: acute toxidromes** Dr Fraz Mir, consultant physician in acute medicine and clinical pharmacology and therapeutics, Cambridge University Hospitals NHS Foundation Trust

The AOS team

AOS services are vital for providing consistent and high-quality care for patients, for optimising clinician time and expertise and for ensuring the best use of NHS resources

To promote education, awareness and early access to specialist oncology input, as well as a more integrated way of working between oncology units and acute specialities within hospital trusts

Patients most appropriate for AOS working with acute medicine

AOS can support the development of pathways for acute admissions. They can provide a 24-hour treatment helpline directly to AMU or SDEC areas, and for patients discharged from AMU/SDEC.

Patients appropriate for AOS	How can AOS help?
New cancer diagnoses – especially in cases of malignancy of unknown origin	Signpost to appropriate MDT referrals for new cancer patients/recurrence
Progression or complications of known cancer	Advice and expertise about oncological emergencies and treatment complications
Treatment complications	
Need to clarify treatment goals / appropriate ceilings of treatment with patient's oncologist	Access to senior oncologist advice
	Access cancer records
Referred via 24-hour treatment helplines	Continuity of care

Acute oncology service recommended core team

- Clinical nurse specialists
  Many teams have an advanced nurse practitioner (ANP)
- Medical consultant
  (acute or general medical with an interest in acute oncology (AO), or an oncologist with an interest in AO)
- Allied health professionals (AHPs) such as dietitians, physiotherapists, occupational therapists with experience in cancer care
- Coordinator – to help identify appropriate patients and provide administrative support, data collection

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Common acute oncology emergencies

Acute oncology emergency	Definition / further information
Febrile neutropenia (FN)	Defined as a neutrophil count of <0.5 × 10^9/L with a temperature >38°C or <36°C, and is associated with mortality between 2% and 21%[4]
Metastatic spinal cord compression (MSCC)	Includes both spinal cord and cauda equina compression in patients with known malignancy[5]
Hypercalcaemia of malignancy	A common complication of malignancy. Patients often require bone-directed therapy
Oncological immunotherapy (IO) complications	Immune checkpoint inhibitors (ICIs) can elicit a wide spectrum of autoimmune-like side effects, including dermatitis, colitis, pneumonitis, hepatitis and endocrinopathies including hypophysitis
New brain lesions	May be primary or secondary. Require liaison with neurosurgery and oncology; commence dexamethasone
Superior vena cava obstruction (SVCO)	Requires histological diagnosis for decision of optimal treatment. Few patients will require immediate intervention

Combinations of treatments/ toxic drugs can make presentations confusing, especially in the context of comorbidity

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Management of common acute oncology emergencies

(for detailed pathways, see UKONS Acute Oncology Initial Management Guidelines[8])

Febrile neutropenia (FN)

- Once FN is **suspected**, administer an immediate first dose of empirical broad-spectrum antibiotics. Don't wait for blood results to confirm neutropenia.
- Ensure that blood cultures / other appropriate cultures are taken, dependent on symptoms. Peripheral and line cultures should be taken if an indwelling line is present.
- Once FN is **confirmed**, refer to local policy for further management.
- FN management should be integrated into standard suspected sepsis[8] and infection pathways, including COVID-19, risk assessment utilising NEWS2 and clinical judgement, and source identification.
- Do not remove indwelling lines/devices unless there is a clear requirement to do so, and after advice of AOS.

Consider a low-risk neutropenia pathway

Metastatic spinal cord compression (MSCC)

Around 20% of MSCC presentations are new cancer diagnoses. The most common cancers causing this are breast, prostate and lung cancer, and myeloma.

Red flags for suspect MSCC are:

- back pain – especially progressive pain that is 'band like'
  - localised spinal tenderness
  - straining with pain in cervical and thoracic spine
  - nocturnal spinal pain preventing sleep
- neurological signs/symptoms
  - limb weakness
  - difficulty walking
  - sensory level
  - bladder/bowel dysfunction.

These neurological signs are poor prognostic indicators.[5]

Request urgent **whole-spine** MRI within 24 hours

Key to MSCC management is good history (from patient!)

Common presentations in acute oncology

Presentation	Consider
Fatigue/generally unwell	> electrolyte disturbances > adrenal insufficiency* > hyperglycaemia > anaemia > hypothyroidism* *can be ICI/IO related, including hypophysitis
Shortness of breath	> pulmonary embolus > chest infection or sepsis > pneumonitis secondary to IO > cardiac failure including myocarditis > pulmonary spread of cancer
Fever	> febrile neutropenia > immunotherapy-related toxicity > indwelling line > disease related (nodal involvement)
Chest pain	> pulmonary embolus > pleurisy from infection > anaemia worsening angina > chemotherapy-induced coronary spasm
Nausea/vomiting	> chemotherapy related > constipation (may be due to hypercalcaemia) > electrolyte disturbance > low cortisol > bowel obstruction Ensure hydrated and sufficient anti-emetic treatment
Diarrhoea	> chemotherapy or radiotherapy related > ICI-induced colitis Do not give loperamide first line to patients on immunotherapy, as it will mask response
Headaches/new confusion	> brain metastases > hypercalcaemia > electrolyte disturbances > hypophysitis
Pain related to cancer/ metastases	Ensure effective analgesia, treatment of hypercalcaemia and treatment of side effects eg constipation

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Key questions to ask your patient who has a diagnosis of cancer

- What matters to you?
- What is your understanding of your cancer and the goal of your cancer treatment?
- Do you have a cancer keyworker / cancer nurse specialist?
- Have you been given an alert card for cancer treatment?
- Are you currently taking any tablets/injections for cancer treatment?
- Have you had any cancer treatment (chemotherapy) (by injection/infusion or by mouth) in the past week?
- Have you had any immune treatment for cancer in the past 12 months?
- Have you ever had radiotherapy for cancer?

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Prognosis in Acute Oncology, an MDT approach

- Acute admission can be a sign of deteriorating health and prognosis
- It's important to appreciate the patient's knowledge of their disease
- Some cancers have much better prognosis now than 5-10 years ago
- Involving oncology early in a patient's admission can help to make timely, appropriate treatment escalation decisions
- Consider the patient's pre-morbid Performance Status, as this can impact treatment suitability

> "Sadly, many acute oncology patients are in their last year of life. Taking time to listen and talk is often more useful than tests.'

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Despite new treatments, unlikely to prolong life in

- Very frail patients
- PS 2-3 borderline patients
- Patients with end organ failure

Same Day Emergency Care

> "Many patients with cancer would prefer the option to be treated through an ambulatory service and to avoid having to interact with busy emergency departments / AMUs.'

Consider SDEC for patients with:

- low-risk febrile neutropenia
- electrolyte disturbances, including hypercalcaemia
- low-grade immunotherapy toxicities
- coincidental findings on CT scans (including MSCC) with no symptoms or abnormal neurology
- cancer-associated venous thromboembolism
- abnormal blood tests (such as LFTs).

- Avoiding ED/AMU is often a priority for oncology patients
- AOS teams can help increase confidence in SDEC management of these patients
- Rapid diagnostic clinics and Oncology Hot Clinics for MUO are good alternatives if available in your area
- Cancer hotlines can stream patients appropriately

Service Recommendations and Quality Improvement

Key recommendations for services

SDEC	Same-day emergency care is invaluable: it can benefit patients with cancer and reduce admissions
Clear clinical guidelines and link to expert advice 24/7 (treating cancer centre)	All AMUs require electronic access to clinical guidelines including referral pathways for common emergencies: MSCC, new brain lesions, malignancy of unknown origin, complications of immunotherapy and how to access expert oncology advice
Immunotherapy clinical lead and team	Immunotherapy is becoming a standard of care for many common cancers, can deliver durable responses and may be combined with chemo- and radiotherapy Acute teams need to be aware of novel toxicity, have access to guidelines and clear links to experts in ICI toxicity
Patients with acute oncology needs frequently need MDT expertise: acute medicine, acute oncology and palliative care	Consider how best to integrate acute oncology teams and palliative care into day-to-day working of the AMU. AOS teams often have experience in advanced communications and may be happy to support honest conversations about disease progression and levels of care
Hospital at home	Patients with cancer should have access to hospital at home to support admission avoidance and early supported discharge

Conclusion

Cancer treatment pathways are increasingly complex; address the immediate needs to stabilise the patient, focus on good symptom control, talk to patients and families about choices and seek expert support early. Sadly, many acute oncology patients are in their last year of life. Taking time to listen and talk is often more useful than tests. This can be daunting, particularly with patients with complex oncological histories, minimal other health conditions or young families. Acute oncology teams often have many years of experience in patient-centred care and can offer support.

> “Sadly, many acute oncology patients are in their last year of life. Taking time to listen and talk is often more useful than tests.'

Recommendations for quality improvement initiatives

- Consider developing named acute oncology leads or link clinicians in AMU. Establish good team working between acute oncology and AMU; patients are frequently reassured that the treating team are involved.
- Use of SDEC pathways for emergency cancer patients, eg audit number of pathways in place, number and type of patients seen. Opportunity to develop pathways between acute oncology and acute medicine.
- Medication reviews; if a patient is identified to have a limited prognosis, was an appropriate review of medication carried out? (eg use medications for long-term benefit such as statin and hypertensive)
- Use of low-risk neutropenic sepsis pathways[9]
- Assessment of pain in MSCC and other diagnoses. If the patient admitted was in pain, were local guidelines followed and improved pain control documented?

Conclusions

- Toolkit for clinical care of Acute Oncology patients
- Signposts key resources and outlines management of Oncological Emergencies
- Includes recommendations for the AOS team makeup and for QI initiatives
- Highlights the importance of thinking about prognosis, admission avoidance and treatment escalation in these patients who may be deteriorating
- Key questions to ask oncology patients
- Outlines conditions and patients who may benefit from SDEC

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With thanks to the RCP Acute Care Toolkit Team

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Any questions?