Principles of an Acute Oncology Service (AOS) in NHS Scotland

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Document Approval

Name	Role	Date
National Acute Oncology Service Short Life Working Group	Development of Key Principles of the AOS	12/05/2022
Scottish Cancer Oversight Committee (NCRG)	Advisory/approval/agreement	18/03/2022

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Audience:
This document has been written by the National Acute Oncology Service Short Life Working Group (see Appendix 1) for consideration of Scottish Government to set out agreed principles for Acute Oncology Services in Scotland.

Acknowledgement:
Grateful thanks are extended to the Greater Manchester, Eastern Mid-Cheshire Acute Oncology Board for permission to utilise their guidance "Acute Oncology Service Recommendations" to inform development of this document.

1. Purpose

The purpose of this document is to lay out the agreed key principles that underpin an effective Acute Oncology Service (AOS) in NHS Scotland. The document will outline the clinical standards and proposed outcome measures against which services can be developed and monitored.

The document recognises that whilst models of service delivery will be tailored to local needs, there should be equitable access to specialist acute oncology services which meet national standards and provide a service that is fit for the future.

2. What is Acute Oncology?

Acute oncology (AO) is a cross cutting service responding to the emergency needs of patients who have been under the care of oncologists or haemato-oncologists. These patients can present to emergency services as a result of treatment side effects, other oncological emergencies or uncontrolled symptoms of disease. In addition to this, many patients who are previously unknown to cancer services present as an emergency with a suspected new cancer diagnosis, and for whom the first diagnosis of cancer is made in the emergency setting – malignancy of unknown primary origin (MUO) or cancer of unknown primary (CUP). This group of patients are often acutely unwell with late presentation of disease.

Although patients are often treated in specialist oncology centres, they are more likely to present to their local hospital when acute problems develop. Specialist acute oncology services ensure that these patients receive the care they need quickly and in the most appropriate setting. Existing services have evidenced:

- Improvement overall on patients' experience and outcomes;
- Reduction in urgent care demand, emergency attendances, diagnostic tests and interventions of negligible value;
- Reduction in average length of stay in hospital of up to 40%[1]
- Reduction in readmission rates;
- Less delay to definitive treatment or progression to palliative and supportive care as appropriate;
- Reduction in avoidable deaths due to complications of treatment; and
- Reduction in overall cost of care by providing earlier interventions and more efficient pathways.

At present there is a deficit in the provision of dedicated AOSs across the country, with inequity of access to these specialist services. Acutely unwell patients can present to

many hospitals across Scotland and current services are acknowledged to be varied, lacking structure and coordination. It is not intended that specialist AOSs replace existing and established cancer disease-specific pathways, but are there to enhance immediate care in this patient group.

Early feedback from users of an existing specialist AOS demonstrates the positive impact this can make for patients and services.

I've only referred one patient to date but was very happy with the prompt response of the team and the early follow-up which was arranged for the patient. All of this was also much appreciated by the patient who was able to get home earlier and be in her own environment during what was a stressful time for her.

It is very helpful for us as we often see patients with cancer of unknown primary. It is helpful to have advice from an oncologist before pursuing investigations that might be fruitless and unpleasant. It helps practice realistic medicine.

An essential service, long-awaited and massively improves the patient journey.

Great service which has provided invaluable advice on investigation and management of patients. The input of the AOS has aided and expedited clinical decision making, leading to improvements in patient care, rationalisation of investigations and certainly has reduced length of stay in some of my patients.

It was excellent – the medical team were very helpful and active in directing early investigation of this young man with newly diagnosed cancer. It made a real difference to his care. This is a great improvement.

This service is a huge help for patients both presenting with new malignancy and established patients on complicated drug regimens. I very much appreciate their input.

The principal role of the specialist AOS in emergency cancer care is advisory, however the positive impact and benefits of the service will be seen across multiple areas:

Patients / Carers	Staff	Services
Overall improved patient experience and outcomes, and improved families experience by providing advice, prompt communication and support	Front door specialist staff in place	Improved use of existing capacity and resource, particularly alleviating pressure at medical front doors, diagnostics and inpatient bed capacity in General Medicine
Establishing the most clinically appropriate care pathway, providing more timely access to the right treatment, in the right place, at the right time	Access to prompt expert/specialist opinion through referral to, and liaison with, other specialties	Specialist staff to appropriately manage and direct AO patients
Improved communication and signposting to appropriate specialist advice and services	Upskilling of the multidisciplinary team in the acute unit	Supporting early realistic medicine discussions with patients about "what matters to you?"
Increased involvement in complex discussions around end of life care, decision making, and plans and need for hospital admission	Standardised training and education opportunities	Streamlined, effective communication across specialities

3. Strategic Context

There are a number of existing policy frameworks and performance targets that are central to the overall strategic context for the future delivery of AOSs in Scotland. The refreshed Cancer Strategy, Beating Cancer: Ambition and Action[2], outlines the aim of ensuring equity of access to sustainable, high quality, timeous and person centred cancer treatment.

Acute Oncology: Increasing engagement and visibility in acute care settings[1] - produced collaboratively by the Royal Colleges of both Physicians and Radiologists, and the Association of Cancer Physicians, sets out the core principles and benefits of the AOS.

The Chief Medical Officer's report Realistic Medicine[3] sets the challenge for services to consider how we can further reduce the burden and harm that patients experience from over treatment and reduce unwarranted variation in clinical practice.

Cancer waiting times standards[4] state that 95% of all patients diagnosed with cancer should commence treatment within 31 days of decision to treat, and 95% of those referred urgently (including patients presenting through emergency departments) with a suspicion of cancer should begin treatment within 62 days of receipt of referral.

Accident and emergency (A&E) waiting times standard[5] states that 95% of all A&E patients should be admitted, discharged or transferred within four hours of arrival at an A&E department.

Re-mobilise, Recover, Re-design: The Framework for NHS Scotland[6], set out how NHS Boards should safely resume services which were paused during the Covid-19 pandemic. The effects of the pandemic are far reaching across all services, dedicated specialist AOSs have the ability to free capacity and alleviate pressure in multiple areas: beds in general medicine; diagnostics to expedite discharges across specialities; acute medicine units (AMUs) and emergency departments.

Sepsis is a major cause of avoidable death in hospitals. The Scottish Patient Safety Programme (SPSP) Sepsis Six care bundle[7], which is a component part of the deteriorating patient work stream, aims to implement a process for structured responses and treatment for sepsis by ensuring compliance with 'sepsis six' within 1 hour of sepsis being suspected . Patients commencing antibiotics within 1 hour is a key element of 'sepsis six'.

Malignant Spinal Cord Compression (MSCC) is believed to occur in approximately 5% of all patients with cancer and is a major cause of morbidity. The presentation of MSCC may vary but early identification and prompt referral for investigation and treatment are paramount to optimise patient outcomes. NICE guidance[8] is available and many NHS Boards have existing guidelines for MSCC which promote a consistent approach to management and clear referral and investigative pathways for patients with suspected or actual MSCC, encouraging prompt referral and treatment to optimise patient outcomes in relation to quality of life and survival.

Every Story's Ending[9] published by the Scottish Palliative Care Partnership, explores what can be done in Scotland to improve people's experience of serious illness, dying and bereavement. It acknowledges the valuable roles of palliative care in hospitals, and identifies palliative care in the acute setting as an area for collaboration and improvement.

The Scottish Government, in its 2021 programme for government, has committed to publishing a new National Strategy for Palliative Care during 2022.

4. Patient and Carer Considerations

Co-ordinated, well integrated, fully resourced specialist AOSs bring about significant benefits for patients by establishing the most clinically appropriate care pathway and providing more timely access to the right treatment, in the right place, first time. Patients, carers, and families experience is also improved overall by the specialist AOS providing advice, prompt communication and support. Differences in service provision lead to very different experiences and outcomes:

Patient journey and carer experience in a site without a specialist AOS in place:

Case Study 1 – 83 year old female with metastatic breast cancer had been declining over a number of weeks at home. Family were supporting at home, providing increasing amounts of care themselves, due to staffing shortages in community care. A family member repeatedly contacted outpatient oncology and primary care and was advised to wait for an updated CT scan and **not** to present to hospital. Following weeks of distress and worry, the lady was brought by the family member to the emergency department, the patient was unwell and in pain. She had a protracted stay in the medical assessment unit where she developed delirium, which was exacerbated by the noisy, overcrowded environment. Restaging confirmed significant disease progression. Oncology (remotely) recommended treatment of bony metastases with either prophylactic pinning or radiotherapy, advising of a life expectancy of 6-12 months. Following face to face assessment of the patient by Palliative Care and she was transferred to a hospice for end of life care.

Carer Experience

- Palliative care were visible, I felt let down and disappointed by the lack of visibility of Oncology.
- I recognise that having the CT performed earlier would not have changed the outcome but it would have changed the journey.
- I knew myself … I had seen the change … I wasn't listened to. There was a failure in the whole system. It was traumatic for us as a family.
- The whole experience was overwhelming and horrendous.

Involvement of dedicated specialist services on site would have altered the clinical advice, made lines of communication with the family clearer, and provided a more supportive environment.

Patient journeys in a site with a specialist AOS in place:

Case Study 2 – 49 year old male with locally advanced pancreatic cancer was admitted within hours of first Folfirinox chemotherapy to the acute hospital site. He had been given oral cyclizine in IAU with no benefit, dexamethasone had not been administered as per chemocare. He was seen by trainee ANP who advised once only subcutaneous levomepromazine 2.5mg, commenced dexamethasone 4mg BD as per chemocare and gave the patient further advice on maximising his anti-emetics. He was discharged later that day and avoided a ward admission.

Case Study 3 – 51 year old female with a background of metastatic breast cancer with bone and liver metastasis, was on 6th line treatment with weekly Paclitaxel. Patient phoned the national treatment helpline and was referred to the acute site with abdominal pain, dysuria and malaise. She was treated for a suspected UTI with antibiotics and picked up for review by AOS via notification of cancer treatment helpline referral. Patient was reviewed by AOS trainee ANP and found to have a 2 day history of dribbling incontinence and also lower limb weakness on examination. Recommended to have a bladder scan and MRI full spine. Imaging revealed extensive sacral metastasis causing nerve root compression, the patient then went on to received 20Gy #5 radiotherapy. She remained mobile and is continuing with further palliative SACT.

Patient journeys in a cancer centre with a dedicated cancer treatment helpline (CTH):

Case Study 4 – 35 year old female with recurrent squamous cell carcinoma of oral cavity being treated with palliative immunotherapy and chemotherapy called the helpline after feeling unwell at home. She was assessed over the phone by a helpline nurse and triaged for review at the Acute Oncology Assessment Unit (AOAU) within the Cancer Centre. Presented at AOAU with NEWS> 5, hypotensive, tachycardic, blood loss from wound, oxygen saturation <94%. She had recently been treated with Doxycycline for a chest infection by the GP. ANP reviewed her - Potential Differentials: neutropenic sepsis, chest sepsis, symptomatic anaemia. Sepsis six was implemented immediately by ANP - IV access, required bloods, oxygen therapy, IV antibiotics prescribed and fluids challenges given. Antibiotics were administered within 20 mins, admitted to ward as neutrophils 0.1 with WCC and CRP rise. Patient was discharged home to her partner and young children within the week.

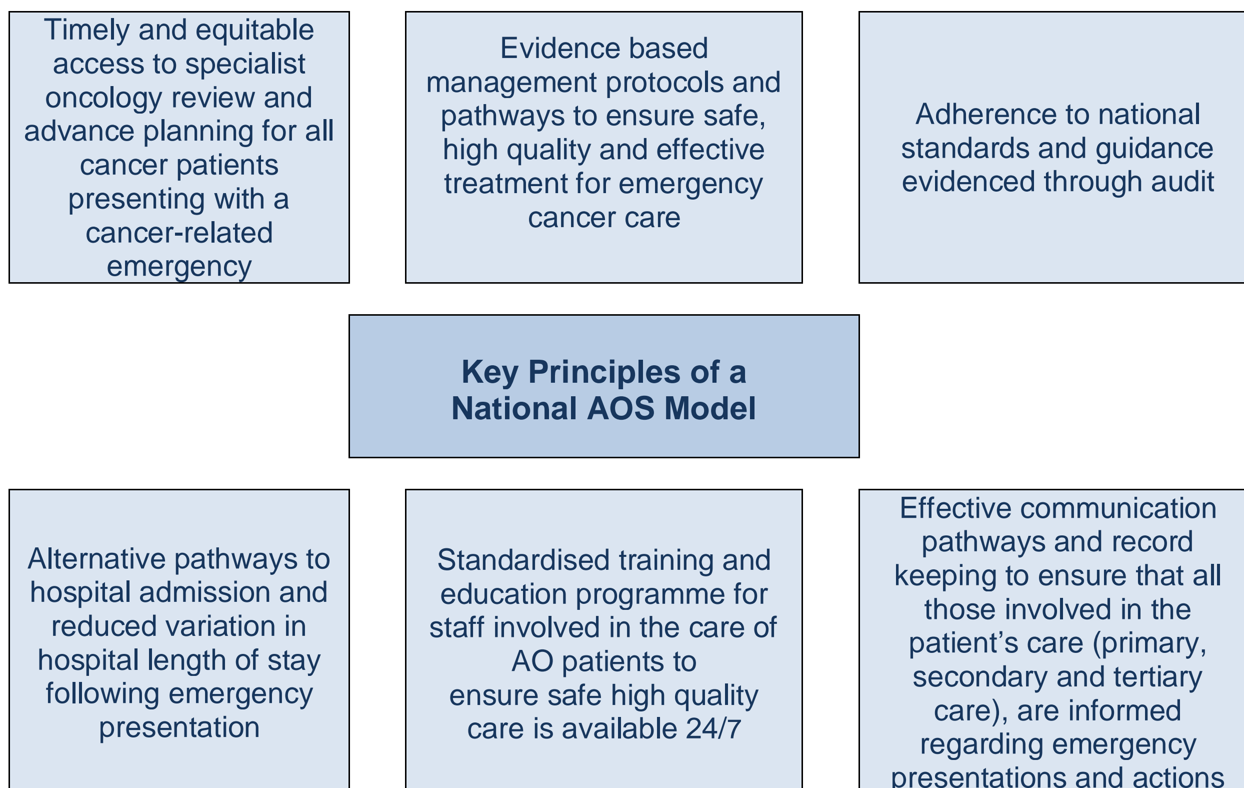
5. Overarching Aims

The overarching aim is to improve quality of care and outcomes for this acutely unwell patient group via a co-ordinated and sustainable approach to AOSs across Scotland.

This would be achieved by establishing robust and fully functional specialist AOSs serving every hospital with acute medicine units/emergency departments - recognising that in some areas, particularly remote and rural areas, this may be achieved by having 24/7 access to AO advice and services from appropriately trained staff in a Cancer Centre - and ensuring that there is a dedicated AO Lead in each of the 5 Cancer Centres.

An additional key aim is to support realistic medicine with delivery of the right treatment, in the right place, first time. This will facilitate release of capacity in, and provide crucial support to, General Medicine and acute medicine units/ emergency departments and release of capacity in tumour specific oncology departments.

6. Key Principles



Having these in place will achieve:

Person centred care:
- A service that provides better care by considering and responding to the needs of the person, and empowering individuals through realistic medicine, to ensure personal values guide the clinical decisions.

Improved awareness and reduction of presentations at Emergency Departments:
- A resilient and sustainable service that provides public and professional awareness of urgent cancer symptoms and a range of options for accessing emergency and unplanned care via expert advice 24hrs a day, 7 days a week.

Reduction in variation in practice and improved outcomes:
- A service that provides timely access to specialist information and optimises the safety and quality of care, for those requiring unplanned emergency cancer care.
- A service that improves patient outcomes and patient experience and reduces unwarranted variation in practice.

Best Practice:
- A service that ensures care is delivered according to the best evidence-based guidelines and relevant UK guidance.
- A service that ensures coordination and seamless care for patients requiring emergency and urgent cancer care, including onward referral to appropriate services.

More Efficient Hospitals:
- Supporting safe operational flow for all patients that need timely access to specialist care.

7. Service and Outcome Evaluation

7.1. Outcome Measures

To improve outcomes through seamlessly delivered AO optimal pathways and supportive care protocols to achieve the following:

- Improved experience and outcomes for individuals;
- Equity of access to acute oncology services and expertise for all cancer patients in Scotland;
- Timely and effective management of patients presenting as an emergency with complications of their cancer and cancer treatment, including: early recognition, improved treatment, rapid referral back to specialist teams, early involvement of specialist palliative care teams, and early discharge;

- Appropriate investigation and management of patients presenting to an AOS with a new cancer diagnosis or oncological emergency in line with the local and/or regional guidelines;
- Preventing unnecessary admission
- Improved outcomes for staff with a highly skilled, competent workforce.

National comparative reporting against agreed outcome measures should be established, these are currently under development. Meeting these outcomes will provide a service that is fit for the future, has sufficient flexibility to provide emergency care, ambulatory care, specialist supportive care, and to withstand pressures. It is recognised that in some remote and rural areas, to achieve these measures of care there will be a need to adapt to local services and resources.

7.2. Service Measures

In addition to meeting the outcome measures, the following metrics will also be utilised to demonstrate successful implementation of specialist AO services:

- Prompt review of new cancers presenting as an emergency;
- Improved performance in the management of neutropenic sepsis;
- Earlier detection and management of suspected and confirmed malignant spinal cord compression (MSCC)/impending MSCC;
- Reduction in average length of stay for patients meeting the AOS criteria;
- Reduction in attendance to admission conversion rate
- Reduction in unnecessary and inappropriate investigations, outpatient appointments and admissions for this patient group to optimise operational capacity.
- Regular collection and publication of patient feedback.
- Adherence to agreed pathways and standard operating procedures.

7.3. Data and Information Requirements

An AOS will maintain the required minimum dataset and have an explicit data and information strategy in place that demonstrates performance against required service and outcome measures, and covers GDP/GDPR data protection, confidentiality, accessibility, transparency, analysis use, dissemination and risks.

8. Key Responsibilities

Scottish Government
To endorse for implementation nationally agreed core principles, standards and outcome measures. To allocate the necessary resource to deliver these, and to set out national requirements for performance monitoring.

National AO Group
Agreeing clinical standards, key principles and national outcome measures, and develop national guidance and standardised protocols, where appropriate. Analysis and monitoring of national AO data based on submissions from Regions. Development of education programmes for AO.

Regional AO Groups
Take forward development of regional AOS models and support local implementation. Analysis and monitoring of AO data, based on submissions from Cancer Centres and NHS Boards.

Cancer Centre Specialist Oncology Services
To lead on development of hub and spoke services which align to national principles, particularly equity of access. This will include the implementation of pathways, protocols, and data collection.

To develop a coordinated training programme tailored to the needs of the multi-professional team which contributes to AOS provision. This will include arrangements for competency sign-off.

Take day-to-day leadership responsibility for supporting robust and flexible specialist AOSs, tailored to local needs within their regional service, ensuring seamless care and timely specialist oncology intervention across health care boundaries.

Cancer Centres will allocate consultant AO sessions to ensure appropriate service continuity at all times

Local Acute Oncology Service Team

Delivery of a clinical service by an appropriately trained specialist AO Team; review of/advice on AO patients within 24 hours of acute presentation; delivery of an AO induction and education programme; and collection of data in line with agreed Minimum Data Set.

Local team will allocate clinical sessions to ensure appropriate service continuity at all times.

AOS to promote service to make visible to local primary and secondary care teams.

Local NHS Boards

To implement fully constituted specialist AOSs that deliver against the required standards and outcome measures, supporting data collection and submission for regional and national comparative reporting. Support staff to undertake necessary education and training.

Local Management Team

In recognition of the vital role the specialist AOS provides to both acute and cancer services, to provide dedicated job planned sessions in AO and CUP for medical, nursing and support staff. This should include administration and service development time to ensure effective running of services.

Urgent care providers

Understanding the key role of specialist AOSs and working in close collaboration with them to provide care to the cancer patient presenting in the emergency setting. To engage with AOS education and training opportunities as appropriate. Work in partnership with AO colleagues and provide appropriate and timely referrals in line with agreed service criteria.

9. Accessibility

The specialist AOS should be accessible to all patients requiring acute oncological care and facilities provided should offer appropriate disabled access for patients, family or carers. When required AOSs will use translators and printed information in multiple languages. NHS Boards have a duty to undertake Equality Impact Assessments as a requirement of race, gender, sexual orientation, and religion and disability equality legislation.

10. Location of Service Delivery

Where practicable specialist AOSs will be provided in every acute hospital site with an emergency department and within specialist Cancer Centres in NHS Scotland. It is recognised that in some areas, particularly remote and rural areas, this is neither practical nor necessary and, as a minimum, AO advice and service should be able to be accessed 24/7 via Cancer Centres.

11. Interdependencies With Other Services

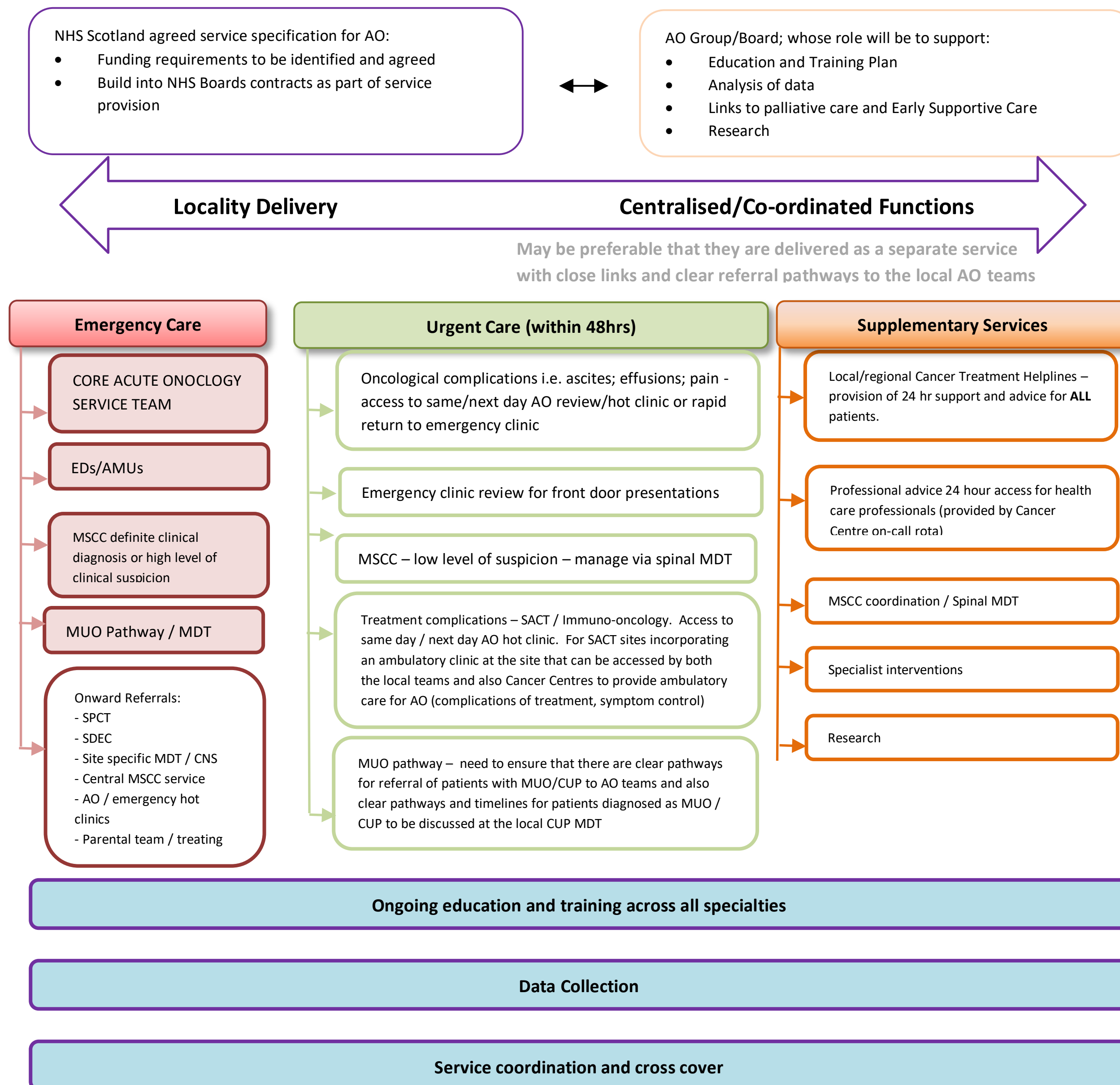
Appendix 4 provides an accessible version of this section.

NHS Scotland specialist AOSs are multi-professional services which integrate specialist acute oncology expertise with existing expertise and services.

12. Recommended Overarching Specialist AOS Model Requirement

Appendix 5 provides an accessible version of this section.

The model describes how services can sit across the country, and regional network areas, and the components required to achieve the service outcome measures and clinical standards.



When further developing this model locally the following will require to be considered:

Where – AMUs operate under significant capacity pressures. The covid-19 pandemic has reinforced the requirements for physical distancing, and the particular importance this holds for clinically extremely vulnerable patients.

Specialist AO teams will help to decompress AMUs and thereby improve safety and quality of care for all patients.

Who – This will require input from a well-trained and coordinated multidisciplinary team. Specialist centres which provide regional oncology services should therefore be tasked with working with all partner NHS Boards to design equitable hub and spoke services, appropriately tailored to local needs.

13. Training Requirements/Recommendations

Development of a specialist AOS requires a coherent approach to defining the purpose and breadth of the services, formal ongoing training and development of the multidisciplinary workforce to lead and deliver them.

There will need to be investment to ensure comprehensive coverage and develop a robust training programme, this should be an early area of focus. Provision of support for education and training from regional, or national, cancer specialist centres to outlying cancer units and acute sites will be required.

Staff involved in specialist AOSs should be able to meet the appropriate competency level in the UKONS Acute Oncology Knowledge and Skills Guidance[10] contained in the training section of the UK Acute Oncology Service website [11]. There are 4 competency levels: Basic; Intermediate; Advanced; and Expert, which cover multi-professional involvement in AOSs for the following patient groups:

- Acutely unwell adult patients who present as an emergency and have a suspected new diagnosis of cancer
- Acutely unwell adult patients who are currently receiving systemic anti-cancer treatment and/or radiotherapy
- Acutely unwell adult patients who have a known cancer diagnosis and may be suffering from complications of cancer

Those directly involved in delivering care in a specialist AOS team would require to meet the following competency levels:

Level 3 – Advanced level knowledge, skills and competency for registered healthcare professionals who have a regular, active participatory role in the provision of Acute Oncology Services for the patient groups listed above.
Applicable to: • Acute Oncology Clinical Nurse Specialists • Acute Oncology Advanced Nurse Practitioners • All Specialist Registrars in oncology and haematology • Members of the Specialist Palliative Care Team if they have a regular, active participatory role in the provision of Acute Oncology Services
Professionals listed above should also complete Level 4 competencies if they are responsible for service development/management

Level 4 Expert – Expert level knowledge, skills and competency for registered healthcare professionals who have a participatory role in acute oncology services for the patient groups listed above and are responsible for acute oncology service development/management/clinical leadership.
Applicable to: • Acute Oncology Nurse Consultants • Acute Oncology Advanced Nurse Practitioners • Acute Oncology Speciality Doctors • Oncology Consultants • Haematology Consultants • Palliative Care Consultants, if they have a regular, active participatory role in the development, leadership and provision of Acute Oncology Services

A high-level summary of medical and advanced practice training requirements is available in Appendix 3.

14. Conclusion and Next Steps

This principles document has been developed by the National Acute Oncology Short Life Working Group (Appendix 1) and will be submitted to the National Cancer Recovery Group for ratification. Further to this it is recommended that the associated draft outcome measures are concluded, following which the national SLWG in its current form is stood down.

It is anticipated that going forward the Scottish Government Health Department should consider the formation of an appropriate governance body to oversee ongoing analysis, monitoring and publication of the future AOS outcome measures.

References

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7 The Scottish Patients Safety Programme Sepsis Six Care Bundle. iHub, Healthcare Improvement Scotland (2018)
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8 NICE Clinical Guideline 75. Metastatic Spinal Cord Compression in adults: risk assessment, diagnosis and management (6th November 2008)
Overview | Metastatic spinal cord compression in adults: risk assessment, diagnosis and management | Guidance | NICE

9 Every Story's Ending – Proposals to improve people's experiences of living with serious illness, dying and bereavement in Scotland. The Scottish Partnership for Palliative Care (September 2021)
Every-Storys-Ending.pdf (palliativecarescotland.org.uk)

10 Acute Oncology Knowledge and Skills Guidance. UK Oncology Nursing Society, Version 1 (amended 4th October 2018)
ukon1905_skills_framework_-_updated_changes_18_07_19.pdf (ukons.org)

11 UK Acute Oncology Service website
Home :: UK Acute Oncology Society

Appendix 1 – National Acute Oncology Short Life Working Group Membership

Name	Specialty / Position	Representing
Seamus Teahan	Chair-Regional Lead Cancer Clinician	WoSCAN
Frances Yuille	Dep Chair - Consultant in Clinical Oncology	SCAN
Azmat Sadozye	Senior Medical Officer	Scottish Government Health Dept
Noelle O'Rourke	Lead Cancer Clinician	Scottish Cancer Network
Graeme Lumsden	National Training Programme Director (Clinical Oncology)	National
Lorna Porteous	Co-Chair – Scottish Cancer Primary Care Group	National
Hugh Brown	Co-Chair – Scottish Cancer Primary Care Group	National
Sarah McCann	AO Lead Advanced Nurse Practitioner	WoSCAN (NHSGGC)
Matthew King	Consultant Acute Physician	SCAN (NHS Lothian)
Catherine MacLean	Consultant Acute Physician	WoSCAN (NHS Forth Valley)
Peter Maclean	Consultant Haematologist	WoSCAN (NHS Ayrshire & Arran)
Anne McKillop	Consultant Oncologist	WoSCAN (NHSGGC)
Alison Mitchell	Consultant in Palliative Medicine	WoSCAN (NHSGGC)
Fiona Campbell	Clinical Nurse Specialist	NCA (NHS Highland)
Jinette Mathieson	Nurse Consultant	NCA (NHS Grampian)
Chrissie Lane	Nurse Consultant	NCA (NHS Highland)
Lesley Taylor	Advanced Oncology Specialist Nurse	NCA (NHS Tayside)
Lynda Taylor	Nurse Consultant and Lead Clinician in Cancer	SCAN (NHS Borders)
Cathy Hutchison	Cancer Consultant Nurse	WoSCAN (NHSGGC)
Evelyn Thomson	Regional Manager (Cancer)	WoSCAN
Tracey Cole	Projects and Planning Manager	WoSCAN
Bryan McKellar	Interim Regional Manager	NCA
Denise Calder	General Manager - Edinburgh Cancer Centre	SCAN (NHS Lothian)
Bobby Alikhani	Regional Manager	SCAN
Ernie Marshall	Consultant Oncologist – Clatterbridge Cancer Centre	External Advisor

Appendix 2 - High Level Training Summary

Medical Training – UKONS Competency Level 4

The medical and clinical oncology curricula (2020) include a shared capability in practice 8 (CiP 8) that requires trainees to develop the ability to manage oncological emergencies and work within the AOS team as appropriate to their stage of training. To provide training that meets the competencies outlined in the latest curriculum trainees need exposed to the following:

- Designated inclusion in an AO team within a cancer centre
- Designated inclusion in an AO team in a hospital that has unselected emergency medical admissions
- Evidence of trainees in-reaching into acute admissions units and medical wards
- Evidence of trainees having ongoing exposure to patients experiencing complications of cancer and anti-cancer treatment
- Experience in common AO scenarios including MSCC and neutropenic sepsis
- Review, management and treatment of patients with new diagnosis of cancer admitted as an emergency
- Satisfactory completion of miniCEX/CBDs, alongside a new Acute Care Assessment Tool, to demonstrate learning
- Regular involvement in all activities to improve service quality – clinical audits, mortality and morbidity reviews, serious incident reviews and relevant research activity

Advanced Practice Training – UKONS Competency Level 4

The training requirements for advanced nursing practice are on a Masters level pathway and, dependant on the experience of the individual, can take up to 2 years to complete. There is an educational commitment required in addition to organisational support - a practice supervisor is required for each trainee ANP from existing ANP staff and, dependant on the experience of the supervising ANP, a maximum of 1-2 trainees can be supported at any one time. Medical team investment, and managerial support, for education and protected time to facilitate role development and studying, are also key to enabling ANPs to evolve fully into their role.

In addition to the existing UKONS competencies, added benefit would be specific to the particular role area and department, for example:

- MSCC recognition and management
- Neutropenic sepsis
- Immunotherapy related presentations
- CUP/MUO

The above are broad examples, however, a generic acute oncology competency-based portfolio would be required to be devised. Additionally, within that competency strategy there should be generic ANP competencies such as management of surgical and medical emergencies.

The ANP should have a record with documented evidence of the following:

- Case based discussions (approximately 1 per month)
- Mini CEX's, CBD, NMP, ALS
- Scenario based clinical OSCEs biannually (this is the gold standard)
- Approximately 12 hours CPD monthly (as per advanced practice guidance)
- Attendance at 1 advanced practice or non-medical prescribing conference a year
- Dedicated clinical supervision with ANP peers a minimum of 4 times per annum
- Monthly team education
- Service development and audit

(Examples of accepted evidence of ongoing professional development are: publication of research; additional clinical learning – i.e. Adults with Incapacity certification, Advanced Life Support).

Appendix 4 – Accessible Version of Page 15, Section 11 Interdependencies with Other Services

NHS Scotland specialist AOSs are multi-professional services which integrate specialist acute oncology expertise with existing expertise and services.

The graphic shown on Page 15 demonstrates this by displaying the text Specialist AOS Interdependencies with all relevant services shown in a circular pattern around that text.

In no particular order the interdependent services are:

Diagnostics/Radiology
Oncology Services
Haemato-oncolgy Services
Acute Medicine/Acute Receiving Units
Same Day Emergency Care (SDEC)
Pharmacy
Allied Health Professionals
Primary Care
Ambulatory Care/SACT Services
Third Sector Agencies
Specialist Palliative Care
Malignancy of Unknown Primary Origin/Carcinoma of Unknown Primary
Neurosurgery

Appendix 5 – Accessible Version of Page 16, Section 12 Recommended Overarching Specialist AOS Model Requirements

The model describes how services can sit across the country, and regional network areas, and the components required to achieve the service outcome measures and clinical standards.

The graphic shows a series of coloured boxes in tabular format containing text.

The top level shows the high level delivery requirements and has a double headed arrow to display that communication is required back and forth.

NHS Scotland agreed service specification for Acute Oncology (AO):

- Funding requirements to be identified and agreed
- Build into NHS Boards contracts as part of service provision

AO Group/Board; whose role will be to support:

- Education and Training Plan
- Analysis of data
- Links to palliative care and Early Supportive Care
- Research

The applicable services are then subdivided into Locality Delivery and Centralised/Co-ordinated Functions.

Under Locality Delivery lies responsibility for Emergency Care. The services listed in this category are:

- Core Acute Oncology Service Team.
- Emergency Departments/Acute Medical Units (AMU).
- Malignant spinal cord compression (MSCC) - definite clinical diagnosis or high level of clinical suspicion.
- Malignancy of unknown primary origin (MUO) pathway/multi-disciplinary team (MDT).
- Onward Referrals:
    - Specialist Palliative Care team.
    - Same day emergency care.
    - Site specific multi-disciplinary team/clinical nurse specialist.
    - Central malignant spinal cord compression service.
    - AO/emergency hot clinics.
    - Parental team/treating.

Under Centralised/Coordinated Functions lies responsibility for Supplementary Services. The services listed in this category are:

- Local/regional Cancer Treatment Helplines – provision of 24 hr support and advice for **ALL** patients.
- Professional advice 24 hour access for health care professionals (provided by Cancer Centre on-call rota).
- MSCC coordination / Spinal MDT.
- Specialist interventions.
- Research.

There is also a category titled Urgent Care (within 48 hours); this spans both the Locality Delivery and Centralised/Co-ordinated Functions. There is a note to advise that it may be preferable that they are delivered as a separate service with close links and clear referral pathways to the local AO teams. The services listed in this category are:

- Oncological complications i.e. ascites; effusions; pain - access to same/next day AO review/hot clinic or rapid return to emergency clinic.
- Emergency clinic review for front door presentations.
- MSCC – low level of suspicion – manage via spinal MDT.
- Treatment complications – systemic anti-cancer therapy (SACT)/immuno-oncology. Access to same day/next day AO hot clinic. For SACT sites incorporating an ambulatory clinic at the site that can be accessed by both the local teams and also Cancer Centres to provide ambulatory care for AO (complications of treatment, symptom control).
- MUO pathway – need to ensure that there are clear pathways for referral of patients with MUO/carcinoma of unknown primary (CUP) to AO teams and also clear pathways and timelines for patients diagnosed as MUO/CUP to be discussed at the local CUP MDT meeting.

Three further areas span both the Locality Delivery and Centralised/Co-ordinated Functions, and all services are then listed. These are:

- Ongoing education and training across all specialities.
- Data collection.
- Service coordination and cross cover.

The graphic ends, and text follows.

When further developing this model locally the following will require to be considered:

Where – AMUs operate under significant capacity pressures. The covid-19 pandemic has reinforced the requirements for physical distancing, and the particular importance this holds for clinically extremely vulnerable patients.
Specialist AO teams will help to decompress AMUs and thereby improve safety and quality of care for all patients.

Who – This will require input from a well-trained and coordinated multidisciplinary team. Specialist centres which provide regional oncology services should therefore be tasked with working with all partner NHS Boards to design equitable hub and spoke services, appropriately tailored to local needs.

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