Scottish
Cancer Network

NHS
SCOTLAND

Workshop 3: Strategies to tackle capacity challenges

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Healthcare Improvement Scotland

Strategies to Tackle Capacity Challenges – National approach

Heather Dalrymple, National Clinical Lead, Cancer Medicines

Supporting better quality health and social care for everyone in Scotland

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Background

- Cancer incidence increase of 11% between 2011 & 2021
- SACT activity between 2014 and 2023
  - 73% increase in patients treated (31K vs 18K)
  - 88% increase in SACT appointments (246.5K vs 131K)
- Cancer medicines developments
  - Active and fast pipeline
  - Between 2021 and 2023 - 80 SMC and 9 NCMAG approvals
  - EAMS / compassionate use / expanded access
  - Clinical trials

Background continued

- Complexity of new treatments
  - Preparation / Delivery / Monitoring
  - Education & training requirements
  - Regulatory requirements (e.g. CAR-T)
- Tolerability of (some) treatments has improved
  - Managing complex patients with co-morbidities
  - Treating for longer with more lines of treatment
- Workforce pressures across all disciplines

Emerging Risks and Consequences

RISK OF POOR PATIENT EXPERIENCE AND OUTCOMES

- Delays in treatment initiation for individual patients.
- Delays in implementation of newly approved treatments leading to inequity of access across Scotland.
- Reduced clinical trials activity.
- Reduced time for medicines governance activities.
- Increased risk of errors / near-misses (high risk medicines).
- Reduced time for education & training activities.
- Workforce burnout / poor morale / loss of highly trained staff.
- Increasing requests for mutual aid across health boards.

What Now?

- Review & re-design of service delivery
- Effective use of resources
- Develop & support workforce
- Develop & test new models of care
- Minimise duplication of effort

Areas of National Development

- Risk stratification of SACT
- Once for Scotland – e.g. SACT Protocols
- Capacity planning & monitoring

Risk Stratification of SACT

- Move from a single approach to SACT management to one which is stratified based on risk
- Aim to facilitate service redesign and relieve pressure on SACT services
- Could impact on:
  - WHO can be involved in delivery of certain types of SACT
  - TRAINING requirements
  - WHERE SACT can be prescribed, dispensed, prepared & administered
  - FREQUENCY & TYPE of review required for individual regimens

SLWG Aims

- Identify areas where a risk stratified approach to SACT management could offer opportunities for improvements which are beneficial to both patients and SACT services.
- Discuss how individual SACT should be assessed for risk, the criteria to be used and governance for assigning categories, and whether this should be undertaken nationally to ensure consistency of approach across NHS Scotland.
- Review implications for CEL30 SACT Safe Use Guidance and updates required to facilitate adoption of a risk stratified approach.
- Agree implementation plan to ensure there is clarity across the MDT on any changes to SACT management being introduced.

Once for Scotland SACT Protocols

- National questionnaire identified similarities & differences of current processes across Scotland
- Widespread support for further exploration but number of challenges around process, platform & governance to be tackled.
- UK SACT board exploring a commercial arrangement with pharmaceutical press and proposal of a centralised funding approach to home nations governments - may not cover all needs
- End-result may be a hybrid approach

SCAN
South East Scotland Cancer Network

Capacity Planning & Monitoring

Lois Pollock, SCAN Pharmacy Advisor

Judith Smith, SCAN Nurse Consultant

Supporting better quality health and social care for everyone in Scotland

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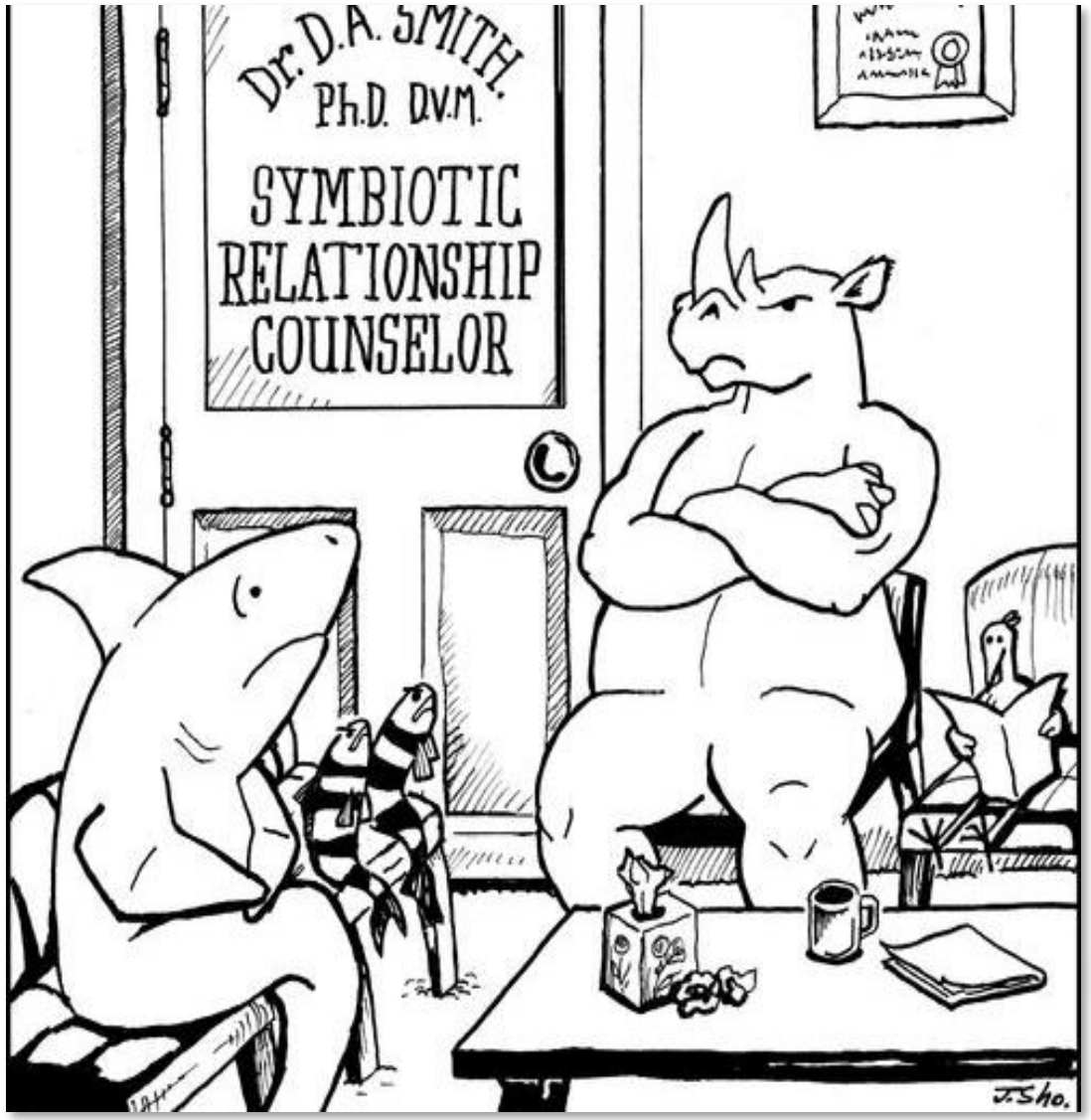
What Capacity are we capturing?

- **Activity & Patient Numbers**
- Chemocare In-house reporting
- PHS activity dashboard
- Regional capacity tools
- Manual KPIs
- Formularly Applications considerations

- **What do we want to measure**
- Baseline activity for trend monitoring
- Resource utilisation
- Change impact on resource e.g., risk stratification work, ncmag indication
- Model future demand for planning


Dr. D.A. SMITH
Ph.D. D.V.M.
SYMBIOTIC
RELATIONSHIP
COUNSELOR
J.Sho.

What are we doing well ?

- **National Parameters already exist:**
- SOPPG clinical verification times, ASSIG complexity banding & BOPA looking to validate the SOPPG pharmacy workforce tool which would further reinforce Scottish work to date.

- SCAN nurse and chair pathway timings for each drug admin route have been validated / accepted by WOSCAN Nurse Group & NCA. Agreement in principle from National SACT Nursing Group to work to the same timings once further validation carried out.

- Regional Tools in WoSCAN and SCAN, (helped NHS Highland).
- Documents to support assumptions made, multidisp. regional endorsement.

Next Steps……

- Since UK SACT Board conference at end of 2023, lots of engagement and requests for copies of SCAN tool - PHE, NICE, Wales and Northern Ireland.
- Support from Cancer Strategy Board for a national direction, IP and potential to exploit the capabilities of a weekly refreshed national SACT data set.
- Explore standardised chair times with Nat. SACT data (dashboard against activity by tumour group, admin route)
- Met with HIS, SMC, NCMAG & Horizon Scanning to start explore their needs to aid planning
- SLWG needed, with underpinned governance & reporting pathway and BAU.
- Still needs to work for Boards!!!

6 monthly capacity impact

	Jan-June 23	Ave per week (DU)	July -Dec 23	Ave per week (DU)	Change Ave per week (DU)
Total patient episodes for SACT	2772.0	107.0	3143.0	121.0	**14**
Total RGN time for toxicity assess (hrs)	560.6	21.6	591.4	22.7	1.1
Total CSW & RGN (hrs) SACT!	3210.3	123.5	3412.9	131.3	6.6
Total RGN + CSW non-sact (hrs)	406.8	15.6	374.3	14.4	-1.1
Total Nurse + CSW time demand (hrs)		**139**		**146**	**+ 6.6**
Nurse Utilisation (%)		**80**		**84**	**+ 3.7%**

Tool Parameters	Jan - June 23 Hrs/wk	Jul -Dec 23 Hrs/Wk
TOTAL CHAIR HOURS AVAILBLE PER WEEK	306	306
TOTAL CHAIR TIME SACT PER WEEK	188	208
	+20hrs	
CHAIR UTILISATION	**81%**	**87%**

Haematology Orals

Haematology Orals	No. of Episodes	TOTAL CHAIR TIME (Hrs)	Total CSW & RGN (Hrs)	Total Toxicity Asses TIME (Hrs)	Total prescribe time (Hrs)	Total Clin pharm time (hrs)
Grand Total	331	248.25	275.83	82.75	82.75	66.2
Per week	12.73	9.55	10.61	3.18	3.18	2.55

Clin Pharm Utilistation	New Pathway
127%	146%

Nurse Utilisation	New Pathway
83.6%	77%

Pembrolizumab Indications

Parameter	Baseline June -Dec 2022	Baseline + Pembro (1st 6 months)
No. of SACT Appoints. pw	273	313 (+40 pw)
CSW SACT time (hpw)	57.3 hrs	60.3 hrs (+2.9)
RGN SACT time (hpw)	234 hrs	248.6 hrs (+14.6)
Tox. Assess. (hpw)	67.3 hrs	70.8 hrs (+3.5)
Nurse Utilisation (SACT & Non-SACT)	80.7%	85%
Chair Utilis. %	55%	61.3%
Prescriber time (hrs pw)	64.4 hrs	67.9 hrs (+3.5)
Clinical Pharm Verification time	51.6 hrs	54.2 hrs (+2.6)

SACT capacity: WoSCAN experience

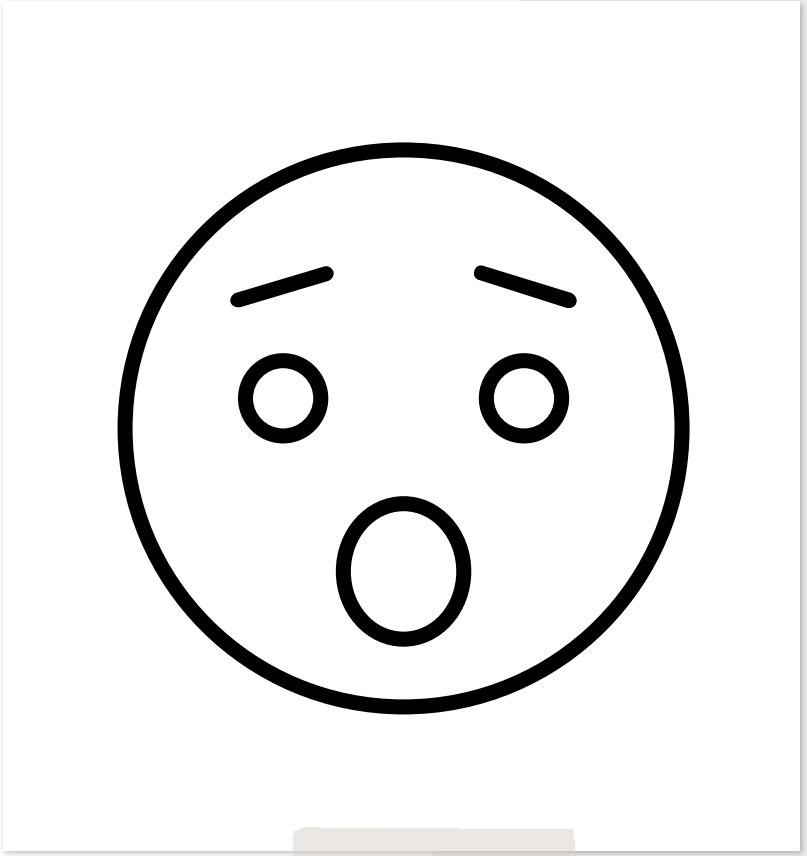
Jennifer Laskey

Lead Pharmacist, West of Scotland Cancer Network

March 2024

WoSCAN Lead Pharmacist Orientation

- Started January 2023
- Well established processes for introduction of new medicines – challenged
- Ongoing SACT activity increases
- Workforce challenges and financial pressures
- CEL audit!
- Induction period across WoSCAN - scope current activity / pressures
- Visits to cancer centres across UK
- Identifying areas of highest activity



Monthly activity

Treatment location

WoSCAN

Cancer type

All cancer types

Cancer sub-group

All sub-groups

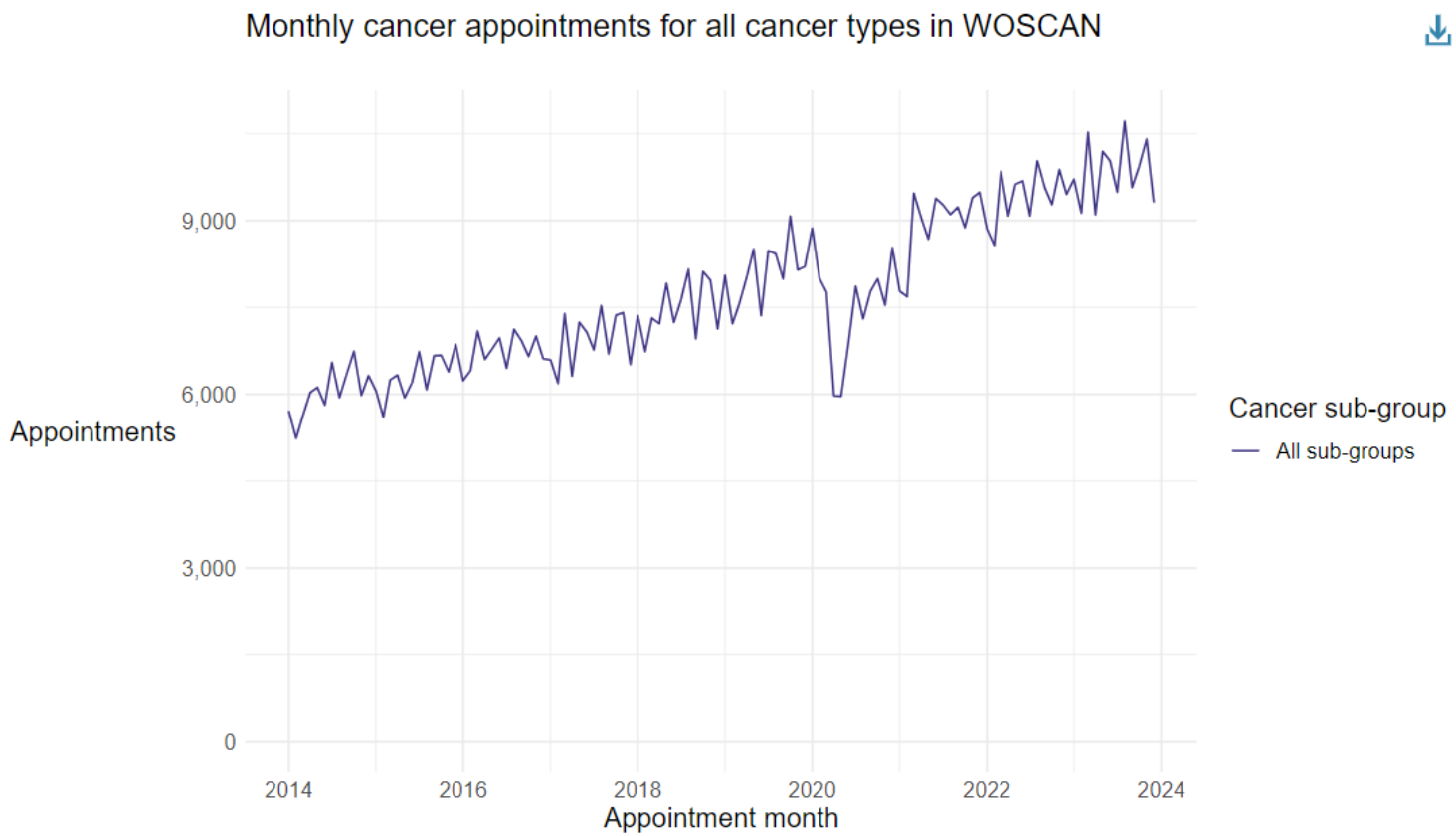
Select administration route

All administration routes

Select drug type

All drug types

Overall chart | Split by location | Split by cancer sub-group | Split by administration route | Split by drug type | Split by patient type



Increasing SACT activity

Regimen	Total % episodes WoSCAN
Hydroxycarbamide	6.2%
Zoledronic acid	5.9%
Enzalutamide	4%
Abiraterone	3.6%
Azacitidine	3.6%
Paclitaxel	3.2%
Pembrolizumab	2.7%
Trastuzumab	2.6%
Pertuzumab/Trastuzumab	2.4%
Lenalidomide/Dexamethasone	2.2%

Considerations for addressing supply v demand with SACT resource

Where can pharmacy teams add most value?

What is the optimal skill mix in the delivery of SACT?

Does all SACT have the same risks?

What does the future of SACT look like?

Initial steps

- Maintain monthly Prescribing Advisory Subgroup meetings to support introduction of new medicines / developments
- Business cases to support introduction of high impact cancer medicines in breast and prostate cancer across WoSCAN
- Continue collaboration ‘Once for Scotland’ - reduce duplication (CMP’s, NCMAG, National protocols, BOPA passport)
- Continue to support NMP model (50% target)
- Enhanced horizon scanning to support service planning
- Extended interval immunotherapy dosing as standard
- Initiate plans for near-patient ICI preparation

Next Steps: WoSCAN SACT capacity pharmacy task and finish group

SACT (and non SACT) risk stratification

Technician verification

Near patient immunotherapy preparation

Benchmarking against UK SACT board guidance for aseptic services

Self-administration of sc SACT

Healthcare Improvement Scotland

SACT Outreach Facilities- Potential for Releasing Day Unit Capacity

Nicky Batty, SACT Governance Lead Clinical Nurse Specialist

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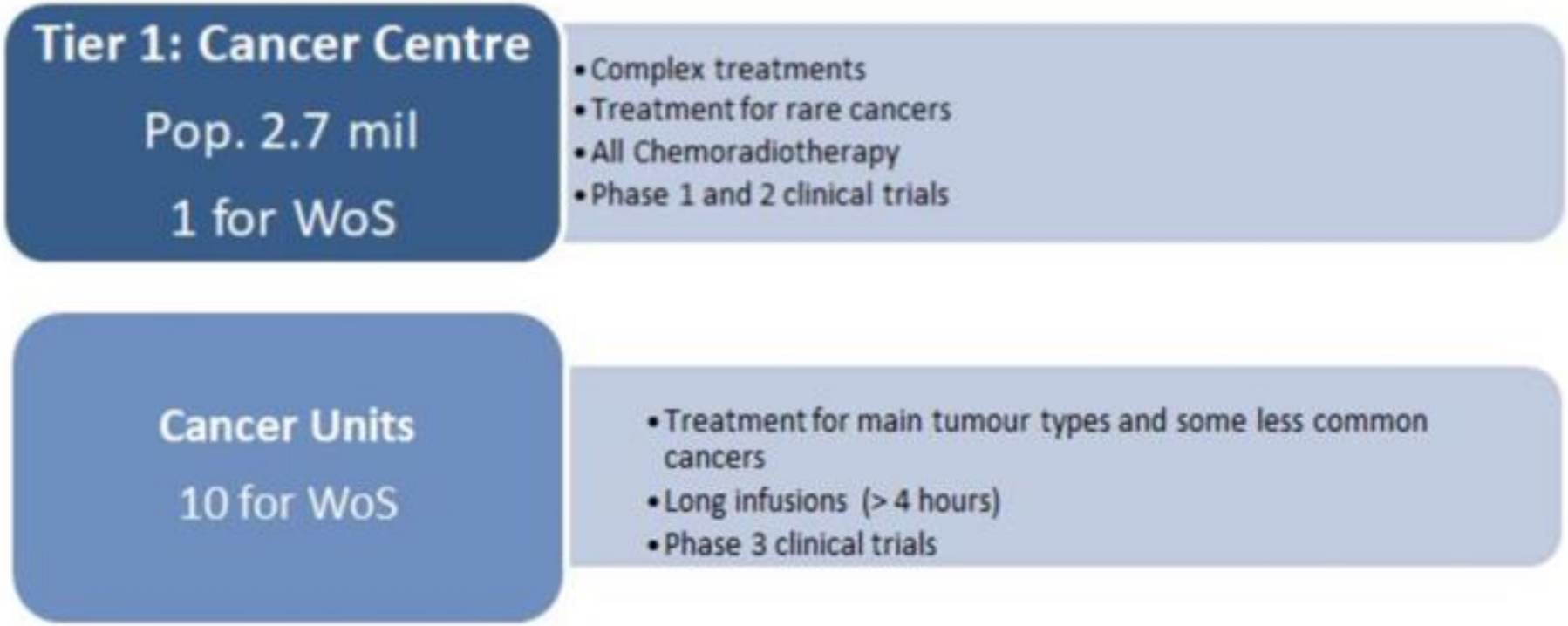
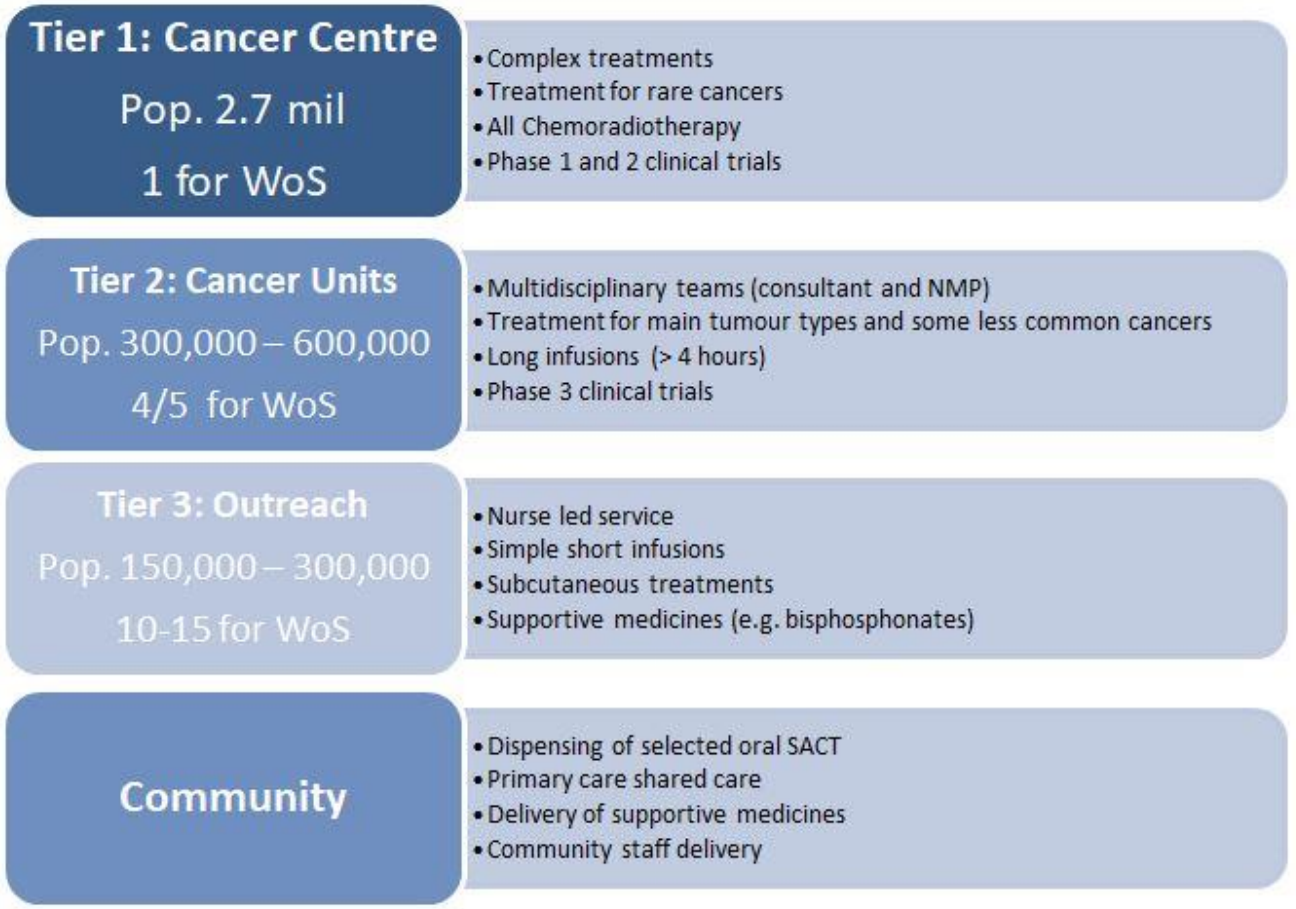
Previous WoSCAN Model



Emerging Service Model



Ayrshire & Arran SACT Model

SACT Outreach Facility

- Off an acute hospital site – close to University Hospital Ayr
- SOP for deteriorating patient
- SOP for patient attending and unwell
- Risk stratification of SACT – SACT with low risk of reactions at Kyle
- Established delivery runs of SACT from UHC to Kyle
- Out-patient Prescribing Facility
- Pharmacy hub – for SACT verification
- NMP hub

NHS A&A SACT Risk Stratification for Outreach SACT

SACT Risk Stratification Process

New Patients / Recommencing SACT Regimens

NHS Ayrshire & Arran

Definitions:

- Tier 2 (high risk) SACT delivery sites: Ward 5E (day case) and 3A (in-patient) UHC
- Tier 3 (low risk) SACT delivery sites Kyle Chemotherapy Unit UHA and Ward 5E (day case) and 3A (in-patient) UHC. All SACT activity within Kyle Chemotherapy Unit UHA MUST be scheduled for completion prior to 5pm

Risk Stratification:

Patient should be discussed at a team meeting or clinic and risk stratified using NHS Ayrshire & Arran SACT risk stratification tool (Appendix 1 Oncology & Appendix 2 Haematology). Patients **MUST** meet the following criteria for Tier 3:

- Performance status of 2 Less
- No hypersensitivity reaction or anaphylaxis to current SACT regime. **Re-challenges are not permitted in Tier 3**
- Grade 3 toxicities on current regimen should be discussed by team and can proceed where appropriate e.g. nausea with change in anti-emetics
- Selection of Tier 3 delivery site will be based on patient postcode, service capacity and patient preference where possible
- Patients who have had a break in treatment of equal to, or greater than 12 weeks, and are re-starting the same SAC T regimen, should be scheduled as per risk stratification for cycle 1 &2 (breaks in treatment may be due to e.g. patient choice, surgery, other co-morbid condition).

Consent:

- Patient consents to SACT

Prescribing, scheduling and treatment:

- SACT will be prescribed by a member of a clinical oncology or haematology team, then verified by an oncology pharmacist. SACT should be allocated to the appropriate delivery area by the prescriber
- The patient will then appear on relevant Pending List
- It is the Coordinators responsibility to then manage booking and schedule to appropriate diary
- Weekly meeting to take place Friday pm between cross site co-ordinators to discuss patient issues/movement/scheduling.
- All prescribing and clinical decision making will remain the responsibility of the relevant prescribing team
- If the patient is no longer suitable for Tier 3 delivery it is the prescriber's responsibility to annotate on ChemoCare, change treatment location accordingly and communicate with relevant teams. Coordinator manages the patient booking and allocates to Tier 2

Nursing Feedback from SACT Administration Episode:
If the patient experiences hypersensitivity/anaphylaxis, nursing staff must email the tumour specific team
If nursing staff have a clinical concern about administering SACT to a patient on the Tier 3 site due to individual patient issues they must email the tumour specific team to advise them of concerns / issues

NHS Ayrshire & Arran

Appendix 1
Appropriate Treatments for Outreach Tier 3 SACT Delivery

Name of Treatment	
From Cycle 1	**Rationale**
CAV	
Cisplatin/ Gemcitabine	Moved to From Cycle 1 (very low risk)
Cisplatin/ Vinorelbine	Moved to From Cycle 1 (very low risk)
Denosumab	
Doxorubicin	Moved to From Cycle 1 (same risk as FEC, EC etc)
Doxorubicin / Cyclophosphamide	Moved to From Cycle 1 (same risk as FEC, EC etc)
EC (Epirubicin, Cyclophosphamide)	
E (Epirubicin)	
Eribulin	Moved to From Cycle 1 (very low risk)
Faslodex Injection	
FEC (Fluorouracil, Epirubicin, Cyclophosphamide)	
Gemcitabine	Moved to From Cycle 1 (very low risk)
MDG (Modified De Gramont)	Moved to From Cycle 1 (very low risk)
Nivolumab	Moved to From Cycle 1 (very low risk)
Pembrolizumab	Moved to From Cycle 1 (very low risk)
Trastuzumab SC	Moved to From Cycle 1 (very low risk)
Zometa	
From Cycle 3	**Rationale**
Aflibercept	
Atezolizumab	
Atezolizumab/ abraxane	Risk of reaction
Atezolizumab / Carboplatin / Etoposide (1st line only)	Risk of reaction Carboplatin
Avelumab	
Bevacizumab (Avastin)	
Cabazitaxel	Risk of reaction and IV pre-med
Caelyx	Rarely used
Carboplatin (1ST Line Only) +/- Etoposide	Risk of reaction (No pre-meds)
Cisplatin/Etoposide	Risk of reaction
Carboplatin / Capecitabine (1ST Line Only)	Risk of reaction (No pre-meds)
Cetuximab	Risk of reaction and IV pre-meds
Cisplatin	
Docetaxel	Risk of reaction and oral Dex pre & post
Durvalumab	
Ipilimumab +/- Nivolumab	
Irinotecan Single Agent	Risk of acute cholinergic reaction
IRMDG (Irinotecan/ Modified De Gramont)	Risk of acute cholinergic reaction
Mitomycin	Rarely used
OXMDG (Oxaliplatin / Modified De Gramont) +/- Cetuximab	Risk of reaction to Cetuximab & IV Pre-meds
IV Trastuzumab	
Weekly Paclitaxel	Risk of reaction and IV pre-meds
Weekly Paclitaxel / Carboplatin	Risk of reaction and IV pre-meds
Paclitaxel Albumin (Abraxane)	Risk of reaction and IV Dex pre
Panitumumab	
Pemetrexed	
Pemetrexed / Carboplatin (1st Line Only)	Risk of reaction
Pertuzumab / Trastuzumab (IV or S/C)	
Trastuzumab-emtansine (Kadcyla)	Risk of reaction no pre-meds 1st dose 90mins then down to 30 if no issues
Sacituzumab	

Lorna Robertson/ Nicky Batty Approved by SACT GG: 1.3.23 version 5.3

Monitoring of Hypersensitivity to Inform RS

- 45 reactions in 18 months (22 Jun 2022-14 Dec 2023) therefore an average of 3 reactions per month (31 reactions in 2023)
- 19 reactions on a Thu = 42%
- 10 reactions on a Fri = 22%
- 9 reactions on a Wed = 20%
- 6 reactions on a Mon = 13%
- 2 reactions on a Tue = 4%

- Since introduction of hypersensitivity guideline with re-challenge guidance on 7th Jun 2023
- 14 reactions
- 1 reaction 40 mins post infusion
- 7 re-challenged successfully
- 1 re-challenge declined by patient
- 5 not re-challenged

Future Considerations

- SBAR to consider further SACT outreach in North Ayrshire
- Nurse Led Service – No out patient prescribing or pharmacy hub
- This would release chair capacity at both UHC & Kyle to a smaller extent
- Possible opportunity to repatriate patients with rarer tumours from BWoSCC to have their SACT closer to home – release chair capacity at BWoSCC
- SOP required for GGC prescribing & agreement on verification, preparation / dispensing processes
- This would require a review of nursing / pharmacy workforce; aseptic isolator / dispensary time and additional SACT delivery runs