Oncology Haematology Stabilisation Plan

October 2020

Contents

1.0 Introduction

In December 2019, the Department of Health (DOH) requested that HSCB lead on the development of a 2 year stabilisation plan for oncology and haematology services. In addition to year on year increases in patient numbers, services report significant resilience issues in regard to the provision of outpatient assessment and the delivery of systemic anti-cancer therapy (SACT). This document outlines the process for development of the plan and provides an overview of the proposed plan to include costings and an assessment of risk.

1.1 Context

The Department of Health (DOH), commissioned a review of oncology services in May 2018. Haematology services were not included as part of that process. The Oncology Services Transformation (OST) Project, which closed in June 2019, made a series of recommendations in relation to the workforce expansion needed to address the current pressures and to keep pace with projected growth over the next 6 years. The OST project was unable to make any clear recommendations with regard to future service model within the timeframe of the project. While TIG has endorsed the OST recommendations, subject to funding, DOH has identified a requirement to undertake a piece of work to provide clarity around the preferred future model. That work commenced in January 2020 and is running in tandem with the production of the stabilisation plan. While this stabilisation plan seeks to address the immediate pressures, there is an expectation that implementation of the plan will, in time, dovetail into the implementation of the OST recommendations.

Pending completion of the work to agree the future service model, and recognising current pressures within oncology and haematology services, DOH has asked the Health and Social Care Board to lead on the development of a 2 year stabilisation plan for oncology and haematology services. While haematology was out of scope of the OST project, the decision was taken to include haematology in the plan for two main reasons. Firstly, many of the same issues that have contributed to pressures within oncology services have a direct read across into haematology, resulting in similar pressures within haematology services. Moreover, in a number of Trusts the oncology and haematology services utilise the same infrastructure in terms of both staffing and physical setting, so any change in one service area will inevitably impact the other and needs to be considered jointly. It should be noted that while the plan for oncology is informed and underpinned by the work undertaken as part of the OST review, the haematology plans are based on a rapid assessment of immediate need undertaken by Trust teams. The Haematology CRG is of the view that a broader, strategic piece of work encompassing inpatient care is required for haematology services going forward.

It should be noted that this work was paused due to COVID. The report attempts to highlight those areas where investment are particularly relevant in terms of supporting the overall service response to COVID over the coming 12-24 months.

1.2 Aims & Objectives

There have been major clinical developments in oncology and haematology in recent years which have collectively resulted in increasing demands on our systemic anti-cancer therapy (SACT) services. They include:

- an increase in the number of treatment options (both active and palliative);
- improved survival;
- an increase in population with concomitant rise in cancer incidence and
- increased patient expectation with regard to access to treatment, to include new treatments.

These additional service demands have resulted in workload pressures and workforce constraints across all disciplines involved in the delivery of SACT.

The overall aim of the project is to agree a regional plan for the stabilisation of oncology and haematology services for the next 2 years which is both realistic and achievable in terms of both workforce capacity and physical infrastructure. The plan will be costed and will seek to maximise partnership working and optimise use of existing resource. The overall aim of the project is to reduce clinical risk within our oncology and haematology services through the delivery of the following objectives:

1. To address areas of vulnerable, single handed consultant practice within oncology.
2. To improve recruitment and retention of consultant oncologists across all sites and including acute oncology services.
3. To secure at risk haematology consultant posts, retain and appoint trainees.
4. To develop more sustainable teams across our oncology and haematology services - through investment middle tier doctors, nursing, pharmacy and administrative support - thereby facilitating local service improvement, enhancing service resilience and reducing clinical risk.

The working group agreed that the plan should seek to:

- Minimise disruption to oncology and haematology services and therefore to patients and staff.
- Minimise the impact on other related services (e.g. acute oncology, pharmacy).
- Ensure effective governance arrangements are in place to support any service change.

- Ensure that none of the measures taken forward to alleviate the immediate pressure jeopardise long term service development (e.g. by further exacerbating recruitment and retention issues).

1.3 Process

HSCB convened a working group with representation from the following:

- Trust management;
- Clinical leads from oncology and haematology;
- Nursing;
- Pharmacy; and
- NICaN Acute Oncology Clinical Reference Group.

The group met on 4 occasions between January and June 2020. Opportunities were also taken to maximise engagement through existing fora ahead of the workshop to include: NICaN Acute Oncology CRG; NICaN Pharmacy Group and NICaN Nurse Leaders Reference Group. The report is also informed by discussions which took place at a regional workshop on the 28th February, 2020, which looked specifically at pressures within the lung / GU service.

2.0 Stabilising Oncology Services

2.1 An Overview of the Pressures

There are currently 52.2 commissioned consultant oncologist posts across Northern Ireland with 7.7 vacancies (see Table 1 below). Growth in patient numbers has necessitated the redesign of some job plans to support additional clinics (i.e. separation of lung and GU clinics within SET) so the consultant resource is essentially spread more thinly.

Table 1. Overview of Current Consultant Oncologist Workforce

Trust	Number of Funded Consultant posts	Number of vacancies	Number of vacancies filled by locums
Northern	1 (AOS)	1	
South Eastern	1 (AOS)	0	
Southern	1 (AOS)	1	
NWCC	11	4	1
NICC	38.2	1.7	3.5
Total	**52.2**	**7.7**	**4.5**

This situation has been exacerbated by a cycle of consultant absence through sick leave with resulting in additional workload pressures on remaining colleagues and so the cycle of

sickness continues. This is particularly problematic where consultants support both a central and a unit practice. These pressures have resulted in several areas of single handed practice across both clinical and medical oncology (see Table 2 below).

NICC has recently gone at risk to appoint two newly qualified consultants as agency locums. These posts now provide cover for the Antrim breast clinic plus central thyroid practice and the lung / GU clinic (and AO cover one day per week) in Craigavon. NWCC has recently appointed two substantive consultants (subject to completion of CESAR within 6 months of appointment) with a third post under offer and awaiting outcome.

Table 2. Overview of Single-handed Consultant practice

Trust	Single handed practice - SACT	Single handed practice – Radiotherapy
Northern	**Lower GI[1] (currently covered on a temporary basis)** **Lung** **GU** **Breast (from end of March)**	**Lung** **GU**
Southern	**Lung [2]** **GU[2]**	**Lung** **GU[3]** **Breast**
SET	**Lung**	**Lung** **GU** **Breast** **LGI**
NICC	**Thyroid[2]**	**Thyroid[2], Skin**

[1] Currently covered on a temporary basis.
[2] Currently covered by locum appointments.
[3] Service currently provided via a WLI.

The OST Project also identified workforce challenges within chemotherapy nursing with an existing gap of 14.1WTE chemotherapy nurses in 2018/19.

The need to expand the pharmacy infrastructure for the preparation and dispensing of SACT and to ensure consistent delivery of the national standard of clinical verification at clinic with pharmacy input was also highlighted. The report also noted that the physical infrastructure in terms of the capacity of aseptic suites was inadequate.

The overall growth, combined with the workforce constraints outlined above, has resulted in the following governance concerns:

- Several areas of vulnerable single handed oncology practice within units and the cancer centres (see Table 2 below).
- MDTs that have no oncology input or with no oncology cross cover (e.g. Southern Trust GU and central thyroid).
- Pressure on clinic capacity leading to overbooked clinics and an increasing pressure on waiting times for new patients to commence treatment and for review appointments.
- Outpatient pressures are impacting on provision of ward support which in turn impacts on patient flow and elective waits for inpatient care.

These service pressures represent significant risks to the quality, timeliness and continuity of care.

In addition to the above pressures, pharmacy colleagues have identified an immediate concern around the lack of NHS and commercial capacity for aseptic products and in particular dose banded chemotherapy. The OST Project recommended that *"Centralised production of unlicensed specials within Northern Ireland may be particularly beneficial if utilised for production of high volume products for supply across all HSC Trusts."* There is consensus that the NI should develop two facilities for resilience and contingency moving forward. The removal of one of the key commercial providers has since exacerbated the situation with regard to availability of dose-banded chemotherapy causing additional pressures on pharmacy teams. For service stabilisation immediate capacity needs to be identified for the next 2 years. Western Trust have indicated that they would be interested to move now to provide aseptic preparation of dose-banded chemotherapy on behalf of the region. The Trust has been asked to produce a business case by HSCB Head of Pharmacy. In the longer term a second site within BSHCT will also be required.

2.2 Oncology Stabilisation Proposal

Following a regional workshop at the end of February which had a particular focus on lung / GU provision, it is clear that while the consultant body within NICC support the need to consolidate vulnerable practices back to the centre, there is a strong feeling from units that to do so would destabilise the units and the DGHs within which they are hosted and would provide a lower quality of service for patients. It was agreed that, pending agreement of the longer term service model, efforts should be made to enhance the resilience of the current service model through two key actions:

1. The recruitment of additional consultant posts which would address areas of vulnerable practice
2. Investment in the wider team infrastructure – It was felt that this was essential in order to increase capacity and create opportunities for skills mix/advanced practice, thereby reducing workload pressures at consultant level and improving consultant

recruitment and retention on the longer term. In particular trusts identified the need to invest in:

- middle tier doctors;
- chemotherapy nursing;
- advanced practice roles within nursing and pharmacy; and
- robust acute oncology services

With the advent of COVID, virtual clinics and the use of remote assessment has become a necessity and will continue to be so for the foreseeable future. Units consider that there will always be a requirement for some level of on-site consultant presence. However, there is agreement that targeted use of remote assessment from the centre may enable more effective use of consultant resource (as consultants will not be required to travel for every clinic) and will enable more patients to be "seen", mitigating the impact of COVID on waiting times. However, while units have supported remote assessment to date, they report that it has placed a significant strain on unit nursing staff in terms of ensuring appropriate local follow up of actions arising for the remote consultation (e.g. arranging bloods, ECHOs, PICs, pharmacy verification) and this has given rise to governance concerns. As activity levels return to normal, the consensus view is that for virtual assessment to work on a sustainable basis there are two issues to be that need to be considered:

- The first is the need to develop oncology patient navigator/ scheduling roles which would ensure follow up of actions arising from consultations, thereby avoiding an additional burden on an already pressurised nursing workforce, and ensuring robust process and safety netting of patients. The funding to support these posts is reflected in Trust service improvement plans.
- The second is the need to provide robust phlebotomy services to support the provision of virtual clinics. This issue is broader than cancer. While Belfast Trust has specified additional investment to support phlebotomy provision within cancer services, other Trusts are progressing this issue in the context of their broader plans for the rebuilding of elective services.

On the basis of discussions with the service, the proposal for oncology stabilisation includes 5 key elements:

1. Funding to support development of new consultant posts in NICC to address single handed / vulnerable practice and pressures within NICC.
2. Recurrent pick up of the OST early workforce bid / oncology prototype funding.
3. Funding to support the nursing workforce gap identified within the OST Workforce Plan.
4. Funding to support the consolidation and expansion of the Acute Oncology Service (AOS).

5. Funding to support local Trust service improvement plans - Please note, where posts included in Trust plans where already reflected in the work streams above, they were removed from the Trust plans in order to prevent double counting.

The overall cost of the plan is £8.56m. An overview of the costs broken down by each of the five elements is presented in Table 3.

Table 3. Overview of Oncology Stabilisation Costs

			Phasing of Investment	
			20/21	**21/22**
Posts / service area	**total wte**	**Total Investment required (fye)**	**cye**	**Fye**
OST Consultant oncologist gap	**5.00**	**657,025**	**416,116**	**657,025**
OST nursing gap				
Band 5 chemo nurses	**15.90**	**620,161**	**206,720**	**620,161**
AOS investment	**20.87**	**1,268,337**	**422,779**	**1,268,337**
OST Early workforce bid / oncology prototype *	**29.65**	**1,951,249**	**650,416**	**1,951,249**
New posts associated with Trust improvement plans	**84.49**	**4,064,574**	**1,354,858**	**4,064,574**
Total	**155.91**	**8,561,346**	**3,050,890**	**8,561,346**

**Costs updated to 2020/21 costings*

It is proposed that this investment would run across 2 years, through to March 2022. The investment outlined in the OST Workforce plan for the equivalent period was £7.7m excluding AOS costs and key elements of the service improvement plans (e.g. investment in oncology roles to support continued delivery of virtual clinics). It should be noted that, with the exception of the AOS posts, the majority of the posts associated with this investment would align to the workforce plan outlined as part of the OST Report.

Table 4 provides an overview of the total investment broken down to show WTE by professional grouping.

Table 4. WTE posts associated with the investment broken down by professional groupings

WTE by professional grouping	WTE
Consultant Oncologist	5.00
Specialty doctor	6.00
Nurses	64.91
Pharmacy posts	37.94
Administrative roles	22.06
Radiographers	11.00
Clinical scientists	6.00
Others	3.00
TOTAL	**155.91**

Appendix 1 provides a more detailed breakdown of the required nursing posts by banding and by Trust. Appendix 2 provides an overview of the pharmacy posts by banding and by Trust.

Element 1 - Funding to support development of new consultant posts in NICC to address single handed / vulnerable practice and pressures within NICC (fye cost £657k; cye £416k)
In order to address growth and meet professional standards, the OST project identified a need to recruit an additional 10 medical oncologists and 4 clinical oncologists between 2019 and 2026. To address the immediate issues associated with single-handed practice, it is proposed that 5 additional oncology consultant posts are recruited to through the NICC in year. Costs and timings of proposed posts are outlined in Table 5 below.

Table 5. Overview of consultant oncologist costs and phasing

Post	WTE	**Cmments**	**20/21 cye**	**20/21 fye**
Consultant oncologist	1	In post	131405	131405
Consultant oncologist	1	In post	131405	131405
Consultant oncologist	1	Commence Aug Sept 20	87603.33	131405
Consultant oncologist	1	Commence Oct 20	65702.5	131405
Consultant oncologist	1	Commence Jan 21	32851.25	131405
TOTAL	5		**416115.8**	**657025**

The posts are under review but options include:

1. Clinical Oncologist - Antrim Breast/BHSCT Thyroid
2. Medical Oncologist - CAH Lung/GU/BHSCT GU
3. Medical Oncologist - Antrim Breast/BHSCT breast
4. Medical Oncologist - Antrim Lung GU/AOS
5. Clinical Oncologist – to provide backfill for loss two academic posts. This would cover 0.5Whole Time Equivalent (WTE) lung and 0.5 backfill for the LGI/Early Clinical Trials service.

These posts would address a considerable number of the governance concerns identified earlier in the report, eliminating several areas of single handed practice and providing much needed resilience. Belfast have gone at risk to appoint two consultants on a temporary basis and there are a further two trainees coming off programme in year; the Trust is confident it can appoint to all posts.

There are a further 5 clinical oncologists and 3 medical oncologists coming off programme before April 2022. It is essential that the system avails of this opportunity to address current vacancies. Feedback suggests that AO consultant posts are not considered to be attractive due to concerns about professional isolation. *It is suggested that NICC work with cancer units over the coming months to explore how best to address this in order to make the posts more attractive. Similarly, there may be value in both cancer centres coming together to develop a regional approach to recruitment*.

Element 2 – Recurrent pick up of the OST early workforce bid / oncology prototype funding (Cost £1.95m – see Appendix 3 for overview of bid).

The early workforce bid (EWB) represented year 0 of the workforce plan associated with the OST workforce plan. There were two key components to the bid:

(a) Investment in advanced nursing roles within oncology & additional specialty doctor resource within units.
(b) Investment in radiotherapy skills mix

(a) Investment in advanced nursing roles within oncology & additional specialty doctor resource within units.

The bid proposed the development of two Consultant Nurse (CN) roles, one in each cancer centre, together with 0.8WTE Advanced Nurse Practitioner (ANP) and 1.0WTE specialty doctor for each cancer unit. These posts would significantly strengthen the infrastructure within the cancer units. In addition, the nursing roles would lead on the implementation of new ways of working and service developments and quality improvements across oncology services.

The CNs will be based in Cancer Centres and will provide expert leadership and evidence based direction to ensure service standards and practices related to oncology are maintained and improved across agreed tumour sites within cancer services locally and regionally. As a member of the multidisciplinary team (MDT), the CN will provide leadership in the provision of high quality nursing care to cancer patients. The role will be at least 50% clinical facing with the remainder of time focussed on quality improvement, service development, audit and research linked to the agreed tumour site.

In collaboration with regional CN's and as a member the MDT, the ANP will work autonomously within an agreed expanded scope of practice. The role of the ANP which will be 90% clinical facing across agreed tumour site/s with the remainder of time focussed on quality improvement, service development, audit and research linked to the area of cancer. The clinical aspect of the role will include comprehensive assessment with differential diagnosis, diagnosis, provision of complex care using expert decision making skills, prescribing of treatment and care or appropriate referral and or discharge patients/ clients. Northern Ireland's first two ANP trainees commence training in autumn 2020.

Specifically, the CN and ANP will support the development of the cancer nursing workforce enhancing the contribution of the nursing workforce within SACT services through supporting the development and delivery of:

- Nurse Led Pre SACT assessment and review clinics
- SACT delivery to cancer patients in a range of settings across secondary and primary care
- NMP roles for cancer nursing workforce across cancer services.
- Inform Clinical Nurse Specialist (CNS) workforce and educational requirements in collaboration with CN's to facilitate and support changes in nursing contribution to the entire cancer patient pathway across agreed tumour sites
- Support cancer nursing workforce to contribute to the emerging immunotherapies agenda within cancer care.

(b) Investment in Radiotherapy skills mix

The OST project identified an opportunity invest in radiotherapy skills mix in order to optimise consultant capacity. The investment would support the development of advanced practitioner roles in both Therapeutic Radiography and Medical Physics across both cancer centres. These roles would allow some of the tasks currently undertaken by consultant clinical oncologists (e.g. consent, palliative mark up, treatment planning, organs at risk outlining and on treatment reviews) to be undertaken by others thereby releasing valuable consultant time for the management of more complex patients in the radiotherapy pathway. This prototype importantly also provides robust support to the oncology system as a whole through skill mix development at a time when recruitment and retention to consultant clinical oncologist posts is difficult across both cancer centres due to the national shortage.

During the COVID response, both risk to patients and service capacity issues have necessitated a number of changes to usual cancer treatment pathways so that patients who may previously have received surgery are now being treated using radiotherapy. Patient volumes for radiotherapy have increased as a consequence. Given that the risks and constraints associated with surgical provision are unlikely to change significantly throughout

the pandemic response the increased use of radiotherapy treatment is likely to continue, subject to review. Early investment in this skills mix initiative would help to mitigate some of the additional service pressure this will create.

Element 3 - Funding to support the nursing workforce gap identified within the OST Workforce Plan (fye £621k)

The oncology workforce plan identified a gap of 14.1WTE Band 5 chemotherapy nurses in 2018/19. Trusts advise that these posts are vital to improve resilience and to enable the service to cope with the increasing number and complexity of regimens and the increasing volume of patients. When the 6% annual growth rate for SACT is included the number of nurses required increases to 15.9WTE in 20/21 (see Table 6).

Table 6. Overview of Band 5 Chemotherapy Oncology Nursing Gap by Trust

Year	BT	NT	ST	SET	WT	TOTAL
18/19	5.09	2.73	1.02	3.63	1.67	**14.14**
19/20	5.40	2.89	1.08	3.85	1.77	14.99
20/21	***5.72***	***3.07***	***1.15***	***4.08***	***1.88***	***15.89***

Element 4 - Funding to support the consolidation and expansion of the Acute Oncology Service (fye £1.27m)

The development of the acute oncology service (AOS) commenced in 2013 and became operational across all Trusts from March 2016. Current service provision has been funded at 1.0WTE AO consultant in each unit (0.5WTE in AO and 0.5WTE to support a tumour site), 1.0WTE AO Consultant in each cancer centre, plus two Band 7 AO nurses at each unit/centre. Current staffing levels allow Trusts to provide a service on one site, 9am-5pm Monday to Friday. The size of the teams means that when staff are on leave there is no cross-cover. The consultant posts have been vacant in both Northern and Southern Trusts for more than 18 months. Despite these constraints the service has demonstrated measureable impact in terms of admissions avoidance and reduced lengths of stay and has become a core part of oncology services. Units in particular see them as an essential support to local services in the absence of locally employed consultant oncologists. In addition, one of the proposed long term future service models for oncology is likely to include some degree of central assessment and local delivery of chemotherapy. Units contend that a resilient AOS will be a prerequisite to the delivery of any such model.

Acknowledging the ongoing challenges with consultant recruitment, the NICaN AOS CRG, has agreed expansion plans which focus on enhancing the nursing contribution to the service through the development of advanced nursing roles. Plans vary by Trust depending on their own intelligence of when and where patients are presenting. Some trusts are opting to move to extended days Monday – Friday or to expand to weekend provision on their current site, while others are moving to make the service available on new sites in response to patient demand. A breakdown of the proposed posts and costs are presented in Table 7. Table 8 provides an overview of the expansion priorities by Trust area.

AO services have become increasingly important in the context of the service response to COVID-19. Given that some of the symptoms associated with complications of treatment are similar to those of COVID, Trusts have seen an increase in the number of patients presenting and considerable work has had to go into the development and maintenance of rapid access green pathways for this group of vulnerable patients. AO services have also played a fundamental role in supporting enhanced communication for patients and families at a time when hospital visiting has been restricted and appointments/ investigations may have been postponed. The need for a resilient 7-day AO service has never been more critical.

Table 7. Overview of AOS Expansion Posts and Costings by Trust

Trust	Job title	Banding	WTE	Months in-year	Cost per wte	Total FYE
Northern	Speciality Dr for AOS/Onc support (1:9)	Spec Dr	1	12	£89,826	£89,826
	ANP AOS	8A	1	12	£67,076	£67,076
	AOS Nurse	7	1	12	£61,350	£61,350
	Subtotal		***3***			*£218,252*
SET	ANP AOS	Band 8a	1	12	£67,076	£67,076
	AOS Nurse	AOS nurse B7	1.4	12	£68,313	£95,639
	Subtotal		***2.4***			*£162,714*
Southern	AOS expansion - Phase 1	ANP AOS Band 8a	1	12	£67,076	£67,076
	AOS expansion - Phase 1	AOS nurse B7	1.77	12	£68,313	£120,915
	Subtotal		***2.77***			*£187,990*
Western	AOS Nurse	7	1.24	12	£60,037	£74,445
	AOS Nurse	6	0	12	£56,980	£0
	AOS Nurse	5	3.5	12	£46,018	£161,063
	Support worker	3	1.24	12	£29,824	£36,981
	Subtotal		***5.98***			*£272,489*
Belfast	CNS	7	1.4	12	£60,037	£84,051
	CNS	7	1.72	12	£60,037	£103,263
	ANP	8A	2.78	12	£77,396	£215,162
	Support Worker	3	0.82	12	£29,824	£24,455
	Subtotal		***6.72***			*£426,932*
	TOTAL		**20.87**			**£1,268,377**

Table 8. Overview of AOS expansion priorities by Trust area

Trust	Expansion priorities
Belfast	• Expansion to BCH/MIH site Monday – Friday, 9am-5pm. • Consolidation of Monday-Friday 9am-5pm provision at RVH site • Monday-Friday ANP provision within Acute Oncology & Haematology Unit in BCH covering 9-9pm daily • Mon – Fri band 3 support worker 9-5pm
Northern	• Extend provision on Antrim site from 9am-5pm Monday to Friday to 9am-7pm Monday to Friday and 9am-5pm Saturday and Sunday.
SET	• Extend provision on Ulster site from 9am-5pm Monday to Friday to 9am-7pm Monday to Friday and 9am-5pm Saturday and Sunday.
Southern	• Consolidate Monday–Friday 9am-5pm service on Craigavon site • Extend provision on Craigavon site to Saturday and Sunday 9am-5pm
Western	• Extended day 7 days per week triage service (8am -8pm) and an Acute Oncology service at Altnagelvin 7 days per week (8:30-16:30). • Dedicated on-site AOS presence at SWAH 5 days per week (9am-5pm).

Element 5 - Funding to support local Trust service improvement plans (fye costs £4.06m)
Each Trust has developed service improvement plans. These plans focus on a number of areas, many of which were tested within the OST oncology prototypes and which would underpin the delivery of any future service model. These plans also incorporate some of the learning from the service response to COVID-19. Common themes include:

- Continued delivery of virtual clinics;
- Increased use of nurse led assessment, review and prescribing within oncology services;
- Increased use of a two stop approach to SACT assessment and delivery with increased use of telephone assessment to reduce patient time at clinic, improve patient experience and reduce pressure on clinics;
- Extended days for pharmacy to improve clinic flow;
- Pharmacy dispensing of oral SACT at clinics to reduce patient waits and pressure on clinics;
- Increasing skills mix within pharmacy (e.g. investment in technician resource to free up higher bands to undertake more advanced roles such as non-medical prescribing, clinical verification and support for management of unscheduled patients); and
- Provision of phlebotomy services in the community / community bloods.

Some specific examples of planned service improvements are included in Figure 1 below.

Figure 1 – Examples of planned service improvements

Belfast Trust – Provision of Community Bloods

Many of the GPs in Belfast Trust do not participate in the phlebotomy local enhanced service. The requirement to undertake bloods in SACT clinics means longer waits for patients and puts significant additional pressure on the nursing and physical infrastructure. The Trust wants to invest in a nurse outreach service to be located in health and well-being centres to enable bloods to be undertaken in the community pre clinic.

Northern Trust – extended working day for pharmacy

Northern Trust plans to extend its working day within pharmacy. This would enable SACT to be prepared the previous day for early morning clinics and enable earlier dispensing of oral SACT, significantly improving the flow at clinics and enabling a move to a two-step model for assessment and delivery of SACT.

Southern Trust – In addition to the development of enhanced nursing roles, Southern trust plans to introduce a pathway for medicines optimisation for SACT patients enabling them to understand their medications to increase compliance and concordance visit. We are keen to sustain these improvements to improve efficiency within the SACT service.by ensuring that all relevant patients are seen by a Pharmacist at their pre SACT education

South Eastern Trust

SET already has a successful nurse led review clinic in place for uro-oncology. The Trust is currently training an ONP to undertake breast oncology review and an ONP and Pharmacist NMP are currently setting up TKI on-treat follow-up (Afatinib, Gefitinib, Crizotinib, Erlotinib). All of these clinics free vital consultant resource to see new and complex review patients. The Trust would like to invest in further expansion of nurse led review in breast and uro-oncology.

Western Trust

Western Trust plans focus on sustainability and further roll out of medicines optimisation ensuring a streamlined pathway for chemotherapy patients by ensuring that all relevant patients are seen by a Pharmacist at their pre-education visit enabling them to be educated about their medication and allowing a review of any unnecessary medications both of which contribute to increased compliance. The Trusts is also seeking funding to support an extension of pharmacy opening hours to allow additional patients to be treated in the afternoon and for SACT treatments to be delivered beyond 5pm. The Trust also plans to enhanced nursing support to provide more nurse led clinics, maximising skills mix and releasing consultant resource for the management of complex patients.

2.3 Conclusion

Oncology services are facing a number of challenges including increasing patient numbers, related to the increasing older population and improved survival, new and emerging treatment choices and significant resilience issues in regard to the provision of outpatient assessment and the delivery of systemic anti-cancer therapy (SACT). The Oncology Stabilisation Plan aims to address the main areas of risk over the next 2 years whilst dovetailing with the longer term implementation of the OST recommendations and the development of the Oncology Service Model. The Stabilisation Plan focuses on service improvements and on increasing the capacity of the team through a focus on developing skill mix which will optimise the available Consultant capacity. The Plan aims to improve the resilience in local teams and to develop sustainable AOS services, which should support the implementation of the future service model whilst supporting current services. The overall cost of the plan, across 2 years is £8.56 (cye 2020/21 £3.05m).

In addition to this investment it is essential that while we await clarity on the future service model, that those Trusts who have an identified requirement to expand treatment chair numbers progress capital bids to support this. A more joined up regional approach to future consultant recruitment may also help to minimise consultant workforce challenges going forward.

3.0 Stabilising Haematology Services

3.1 Introduction

Haematology is a clinical specialty encompassing the diagnosis, treatment and follow-up of patients who have blood or bleeding disorders. This includes malignant conditions such as Lymphoma, Myeloma and Leukaemia and benign disorders such as Haemophilia, Thalassemia and Immune Thrombocytopenic Purpura.

Haematological disorders are associated with a high risk of mortality and morbidity and patients can experience debilitating symptoms as a result of their condition such as chronic pain, fatigue and reduction in functional mobility. Further, many haematology patients are particularly susceptible to the contraction of infections due to the fact that their immune system is compromised (either as a result of their particular condition and/or the provision of certain treatments).

Due to the complexity of these conditions, patients diagnosed with haematological disorders (either malignant or benign) require close observation and support from specialist hospital teams in order to monitor their condition and provide appropriate care. Many patients require life-long follow-up and regular interactions with hospital services.

Haematology services are currently provided by all five HSC trusts, with specialist provision located in Belfast. Local clinical haematology provision includes diagnosis, treatment and follow up care for patients with a variety of blood disease diagnosed with lymphoma, myeloma, leukaemia, myelodysplastic disorders and non-cancerous (e.g. abnormal blood counts, bleeding and clotting disorders). Services also provide an emergency on call service for patients presenting with acute leukaemia, transfusion, haemostatic and other blood disorders.
In addition to providing a local service for the population of Belfast, the specialist team also provides the following:

- A regional service for patients with lymphoma and myeloma who are undergoing autologous stem cell transplantation to include assessment, inpatient care and follow-up for.
- A regional service for patients who are diagnosed with Acute Myeloid Leukaemia (AML) and those who are undergoing related allogeneic donor transplantation.
- A regional service for patients with inherited blood disorders such as Haemophilia and Thalassemia and are supported by a small, dedicated nursing team.

Belfast therefore supports 3 clinical teams within haematology as follows:

- Lymphoma/ myeloma
- Leukaemia
- Thrombosis.

3.2 Epidemiology

The Northern Ireland Cancer Registry estimates that there are on average 391 and 139 new cases of Lymphoma and Myeloma diagnosed in the province respectively each year (Based on 2012-2016 incidence data). There are approximately 210 people diagnosed with Leukaemia in the province per annum.

The prevalence of Haematological disorders is increasing: the National Cancer Intelligence Network (2013) found that the incidence of malignant Haematology diagnoses increased by 13% between 2001 and 2008 in England. This growing trend has also been evident in Northern Ireland (NI) and Cancer Research UK (2016) predicts that:
"By 2035, it is projected there will be over 14,000 cancer diagnoses each year [in NI] *– an increase of 65% among men and 63% among women."*

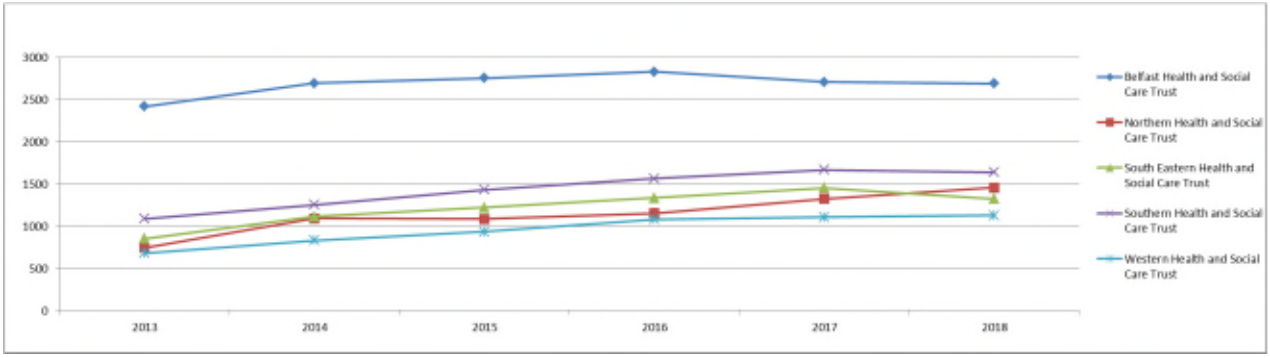
Further, due to the increasing effectiveness of treatments, patients diagnosed with Haematological cancer are living longer with their conditions. Data from Cancer Research UK (2016) shows that patients with haematological cancers living in NI have excellent long-term survival rates compared to patients with other types of cancer with many of these patients requiring long term or even lifelong care. It is clear that there will be continue to be growing demand for haematological care in Northern Ireland.

3.3 Overview of Service Pressures

3.31 Activity and Demand

Demand for haematology services is growing rapidly as our population ages. Regionally referrals have increased from 5783 in 2013 to 8239 in 2018, an increase of 42%. As Figure 2 shows, the increase is of particular note in the Northern Trust.

Figure 2. Haematology Referrals by Trust 2013-2018



New outpatient attendances increased by 11.25% between 2013 and 2018. This activity does not capture significant levels of work undertaken as part of virtual clinics where consultants provide GPs with advice thereby negating the need for face to face appointments and avoiding admissions. As Table 8 shows, the average waiting time for a new outpatient appointment during this period increased from 4 weeks in 2013 to 7 weeks in 2018.

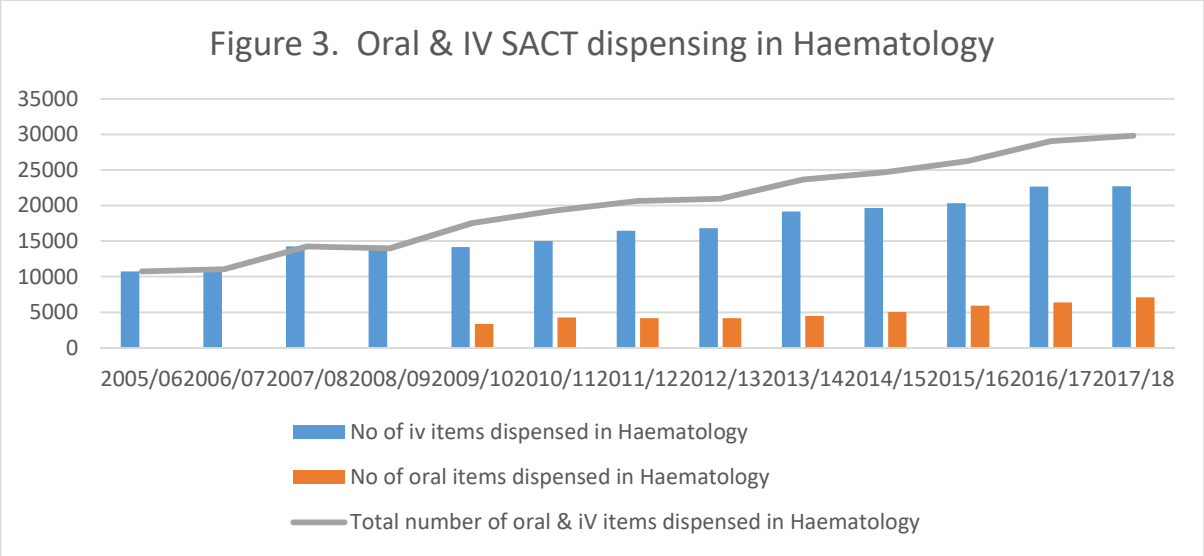
Table 8. New outpatient attendances and waits 2013-2018

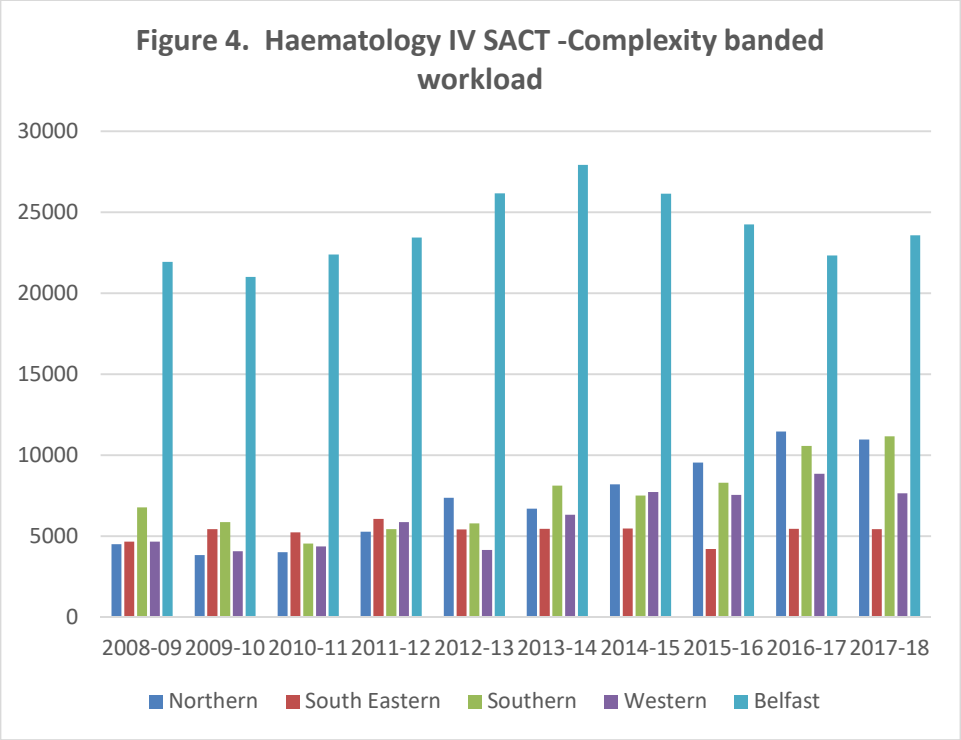
	2013		2014		2015		2016		2017		2018	
	Att	Ave wait (wks)	Att	Ave wait (wks)	Att	Ave wait (wks)	Att	Ave wait (wks)		Ave wait (wks)		Ave wait (wks)
Regional total	4373	4	4637	4	4397	5	4808	6	4987	7	4865	7

Review outpatient activity increased by 14.1% for the same period, increasing from 54,835 in 2013 to 62,704 in 2018. Data would suggest that nurse led activity has not been recorded consistently across all trusts so this is likely to be an underestimation of activity.

Day case activity has increased by 22.9% in the same period, an increase from 10,601 day cases in 2013 to 13,010 in 2018. Similarly, the prescribing of SACT in haematology has expanded significantly over the last 10 years with volumes of oral SACT prescribed trebling

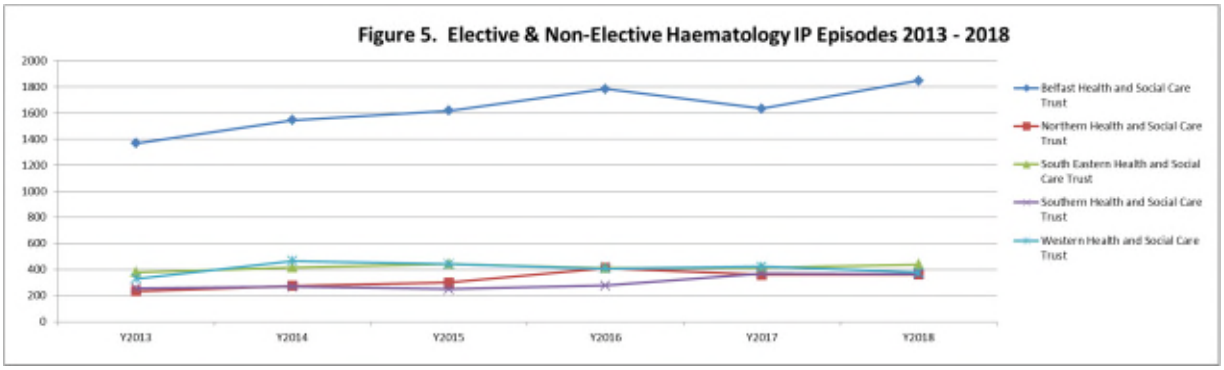
during that time and an almost doubling of oral SACT (see Figure 3 below). This growth has been particularly notable in Northern, Southern and Western Trust areas (see Figure 4).





As Figure 5 shows, inpatient episodes have increased by almost one third (32%) between 2013 and 2018, increasing from 2568 inpatient episodes in 2013 to 3393 in 2018. This is driven by the use of complex chemotherapy regimens that require very close patient monitoring.

The total bed days for the same period increased by 18.9% from 24,855 bed days in 2013 to 29,548 in 2018. The fact that bed days have not increased at the same rate reflects efficient use of beds, modernisation/changes in practise and improved palliative care provision at home/hospice.



3.31 Workforce

Historically, unit teams have been small typically comprising 3.0WTE funded consultant posts and one or two specialty doctors. This has made rota arrangements unattractive, and when combined with national shortages in consultants, has contributed to issues with consultant recruitment and retention.

Service pressures within haematology have been such that Northern, Southern and South Eastern Trusts have funded additional consultant posts at risk. Northern and South Eastern Trusts have increased their teams to 5.0WTE consultants while Southern has expanded to a 4.0WTE team. In addition, Northern and Southern Trusts have recruited additional consultant posts using transformation funding; 0.5WTE in Northern Trust and 1WTE in Southern Trust. Table 9 provides an overview of the number of consultants currently in post across Trusts.

Table 9. Consultant Haematology Workforce by Trust

Trust	Funded WTE Consultants	Additional WTE funded at risk by Trust	Additional Consultants funded by Transformation	Vacancies WTE
BT	9.5	0	2.0 (1 locum)	3.0
NT	4.15	0.875	0.5	0
ST	3.0	1.0	1.0 (locum)	0
SET	4.0	1.0 (locum)	0	0
WT	3.0*	0	0	0
	23.65	**2.875**	**3.5**	**3.0**

** An additional 0.6WTE funding is redirected from Western Trust to Belfast to provide care for patients from the Southern Sector of the Western Trust.*

While the consultant workforce position in haematology has strengthened overall in the past two years, 2.875WTE posts are funded as pressures to the Trusts and a further 3.5WTE posts are currently reliant on non-recurrent transformation funding. Challenges remain in regard to consultant numbers and recruitment in the Western Trust and there are 3 consultant vacancies in Belfast. There are currently 3 locums working across the service.

In an attempt to manage the demand, haematology teams have already taken forward significant modernisation of patient pathways with the development of the nurse specialist led outpatient and telephone follow up clinics and the development of a virtual service to primary care which responds directly to GP queries helping to avoid unnecessary attendances and admissions. Working with the NICaN Haematology CRG the service has already transformed follow up pathways for patients with both Diffuse Large B Cell Lymphoma (.3yrs) and Hodgkin's Lymphoma (>5yrs) who require 3-5 year follow up and work is currently underway to look at modernisation of the pathways for monoclonal gammopathy of undetermined significance (MGUS) and Chronic Lymphocytic Leukaemia.

Nursing has played a critical role in supporting transformation. While the Cancer Nurse Specialist (CNS) expansion plan, which commenced in 2015, has funded four additional CNSs across haematology services (see Table 10), it is accepted that the growth in patient numbers since 2015 means that the CNS benchmarking needs to be rebased and that significant opportunities exist to further expand nurse-led provision within haematology services.

Table 10. CNS Expansion within Haematology Services

Trust	Baseline CNS Staffing Resource	Additional Posts as per Expansion Plan	Total CNS Workforce by 2020/21
Belfast	2wte Band 7 CNS	1.0wte Band 7 CNS	3wte Band 7 CNS
Northern	1.0wte Band 7 CNS	1.0wte Band 7 CNS	2.0wte Band 7 CNS
South Eastern	1.0wte Band 6 CNS	0.5wte Band 6 CNS	1.5wte Band 6 CNS
Southern	1.0wte Band 6 CNS	1.0wte Band 7	1.0wte Band 6 CNS 1.0wte Band 7 CNS
Western	2.0wte Band 7 x CNS 1.0wte Band 6 x CNS	1.0wte Band 7 CNS	3.0wte Band 7 CNS 1.0wte Band 6 CNS
TOTAL WTE	**8**	**4.5**	**12.5**

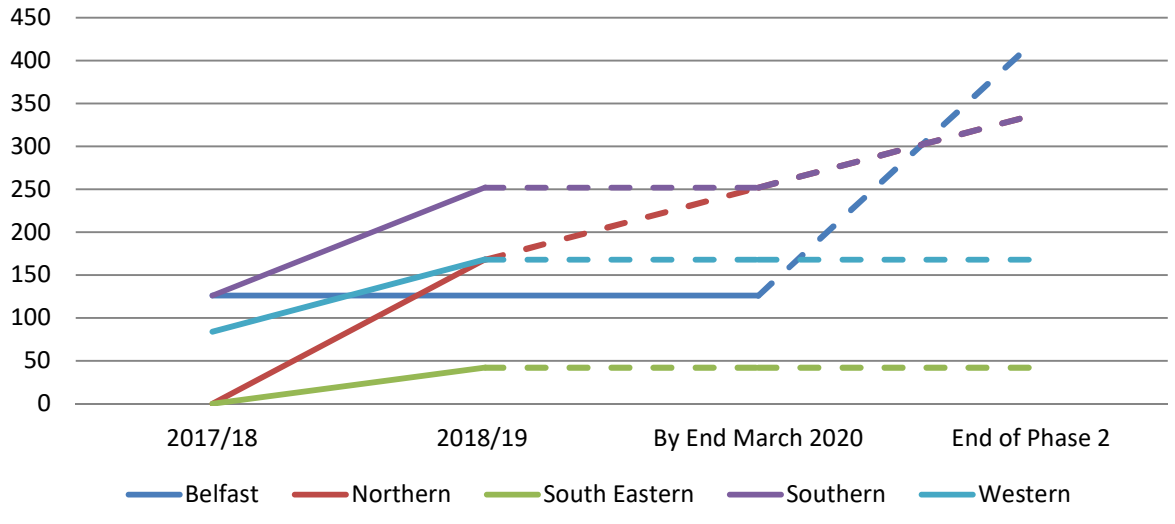
Taken from NICaN Lead Nurse CNS Workforce Expansion Plan August 2018 Status Report

Both Southern and Western Trusts have recruited additional CNS (1.0WTE Band 7 CNS in Southern to support inpatient care and 1WTE Band 6 CNS in Western) using transformation

funding and Trust plans clearly identify a need to further invest in both CNS and Advanced Nurse Practitioner (ANP) roles. In the Southern Trust one trainee Advanced Nurse practitioner is expected to qualify in September 2020 and plans are underway to develop this individual to support the haematology service.

In addition to the investment in CNS provision, haematology services are benefiting from regional investment in non-medical prescribing (NMP) of systemic anti-cancer therapy (SACT) within both nursing and pharmacy. The introduction of NMP could see as much as 60% of our chemotherapy delivery moving to non-medical staff, freeing consultant time to focus on new, review and complex patients. A regional NMP implementation group has agreed a 3 year expansion plan. Subject to recruitment and retention, and based on expansion plans submitted by Trusts, it is anticipated that the number of clinics with NMP input will increase from 252 per annum to 1302 per annum by March 2022 (see Figure 6). Additional investment in both pharmacy and nursing teams would make it more straightforward to release staff to undertake NMP clinics and help move its expansion within haematology forward at pace. The development of the multidisciplinary clinical haematology team is crucial to the stabilization and future growth of services.

Figure 6. Total number of NMP Haematology Clinics to be delivered Regionally from 2017/18 projected to End March 2022 (Completion of Phase 2 investment)



Since the onset of the COVID pandemic there has been a significant shift to tele clinics with up to 75% of SACT patients being reviewed in this way and all trusts finding ways to have blood results available for this review. Patients are being asked to come to hospital only where an intervention is required. While the level of tele clinics may fall somewhat, it has

proved convenient and appears safe so is likely to continue to some degree with associated impact on waiting rooms and phlebotomy services.

3.33 Summary of pressures & risks

While the investments to date have alleviated pressures on clinics to some degree, the increased demand on virtual services, outpatient follow up and day cases mean that Trusts have become increasingly reliant on in house additionality, use of locums and non-recurrent funding to try to manage the demand. The need to see new red flag and urgent and review patients within clinically appropriate timelines means that Trusts are increasingly overbooking clinics to meet the demand which creates clinical risk. This is creating pressures on the infrastructure in terms of nursing, pharmacy and the physical environment and impacts both the patient experience of care and staff stress levels. It also means that routine new and review waiting lists are lengthening and services have been unable to move forward with full implementation of the Regional Information System for Oncology and Haematology (RISOH). The current nursing and pharmacy resource is not adequate to support the development of new clinics. Trusts report that an investment in supporting infrastructure is urgently required to enable teams to take forward service improvements which would streamline clinics, allow a more even distribution of workload across the working week and facilitate more timely care.

3.4 Haematology Stabilisation Proposal

All Trusts have brought forward individual plans which provide enhanced capacity to meet the increase in demand for services whilst simultaneously providing a more resilient service through the development of more sustainable teams. For completeness, all posts associated with transformation funding are included in the plans. While the plans vary slightly dependent on Trust's baseline staffing positions the common theme is the development of sustainable teams:

- Investment in navigator posts to support the continued delivery of virtual clinics;
- Investment in additional consultant posts to create sustainable teams within both the regional centre and the units (minimum 5.0WTE consultants per unit).
- Investment in specialty doctors to support clinics, reduce day time attendance at ED and create more attractive rota arrangements in order to enhance consultant recruitment and retention;
- Investment in CNS and ANP roles to enable more nurse led assessment, prescribing and review; and
- Investment in pharmacy teams to increase capacity to meet the increased demand for SACT and allow more opportunities for pharmacy staff to undertake advanced roles such as NMP.

Table 11 provides an overview of the costs associated with the stabilisation plan, which totals £3.6m. It should be noted that £889k of these costs relate to posts currently funded

through transformation funding until the end of March 2021. The first priority for the service would be to see this funding made recurrent. The full year effect of the posts that fall outside of transformation funding sits at £2.74m. £392,662 relates to consultant cost pressures already in the system, the balance relates to new posts. If we assume a 4 month effect of the new posts in 2020/21 then the cost is £782k. When combined with the pressure associated with the consultant posts, this creates an overall cost in year of £1.17m.

Table 11. Overview of Required Investment

	TOTAL £	Non-recurrent Transformation funding £	Total exlc transformation bids £
Belfast	1,267,507	496,202	771,305
NT	711,710	141,761	569,949
ST	680,223	209,589	470,634
SET	307,753	0	307,753
West	659,827	41,329	618,498
TOTAL	**3,627,020**	**888,881**	**2,738,139**

The investment would secure 59WTE posts across Trust. Table 12 provides an overview of the WTE posts broken down by professional grouping and Trust.

Table 12. Breakdown of WTE by professional grouping & by Trust

	Banding	BT	NT	ST	SET	WT	Total
Consultant haematologist		3	1.875	2	1	2	**9.875**
Specialty doctor		3		1		2	**6**
ANP	8a	1			1	1	**3**
CNS	7			1	1.1	2	**4.1**
CNS	6				1		**1**
Registered Nurse	5	4.5	3	4.5			**12**
Healthcare assistant	3	3					**3**
Pharmacist	7		2	1.4			**3.4**
Pharmacy technician	5		1				**1**
Pharmacy technician	4			0.5			**0.5**
Admin	4	3.25	2	1.5	1	2	**9.75**
Admin support / support worker	3		2	2		1	**5**
Admin	2			0.28			**0.28**
TOTAL		**17.75**	**11.875**	**14.18**	**5.1**	**10**	**58.905**

Note, 6.375WTE of these posts are currently funded non-recurrently; 3.375 are filled substantively and 3 are filled using locums.

3.4.1 Consultant recruitment

The plan identifies a need for recurrent funding to support 9.875WTE consultant posts. Three of these relate to new posts, one in Belfast Trust to support the transplant and acute leukaemia team and two in the West to create a sustainable 5.0WTE consultant team. The balance relates to posts that are already in the service but supported through non-recurrent funding. Of these, 3.375WTE are already filled by substantive consultants with a further 3 currently filled by locums. There are also three vacancies in Belfast.

There are 6 trainees coming off programme between now and August 2021. Confirmation of recurrent funding may enable the service to secure current locums as substantive post holders. If recruitment of trainees was also successful there is also the potential to recruit to both the new posts in the West and the vacancies within Belfast. It should be noted that there will be a substantial time lag between these trainees and the next group due to come off programme so the timing of this investment is critical.

3.4.2 Summary of Individual Trust plans

An overview of each Trust's plans is outlined below.

Belfast Trust

The Trust plan identifies 3 service improvement projects aimed at reducing pressure on clinics and inpatient beds and enhancing the patient experience of care:

- **Remote bloods** – many GP practices within the Trust area do not participate in the phlebotomy local enhanced service which means that patients have to come to clinic to have bloods done. This is contributing to significant overcrowding at clinics and is leading to a poor patient experience. A small investment in nursing would enable provision of community bloods, reducing footfall at clinics and facilitating increased use of a two-step approach to SACT assessment and delivery.
- **Ambulatory follow-up** – the trust would like to appoint an Advanced Nurse Practitioner and Specialty doctor to facilitate early discharge from specialist inpatient ward. This has the potential to significantly reduce bed-days in the specialist regional treatment ward, thereby enabling earlier admission for stem cell transplant and complex chemotherapy patients (scoping suggests that equivalent of 2-3 beds could be released via this service model).
- **Provision of supportive treatments in the community** – the trust would like to establish an service level agreement with a private provider for the provision of supportive treatments in the community that are normally in Bridgewater. Scoping has identified that approx. 20-25 procedures undertaken in BWS each month could be delivered in community; would release significant amount of treatment chair time, thereby releasing capacity to meet growing demand for SACT.
- **Support Virtual Clinics**– the trust would like to appoint 2.00 WTE Band 4 Navigators who would support the scheduling, and organisation of these clinics. The navigator

would work across the Lymphoma, Leukaemia and Thrombosis teams. This investment will facilitate a more efficient, effective and sustainable model of delivering virtual clinics in the haematology service.

Northern Trust

In order to meet its demand, Northern Trust routinely overbooks clinics. The Northern Trust plan focuses on the need to secure recurrent funding for its 5th consultant post together with a significant investment in pharmacy and nursing capacity in order to enable the team to staff additional clinics, negating the need for clinics to be overbooked, ensuring an improved patient experience of care and reducing workload pressures on staff. Pharmacy investment would also support clinical verification in clinic whilst investment in navigators will support the continued delivery of virtual clinics.

Southern Trust

Similar to Northern Trust, Southern Trust bid focuses on securing funding for the 5th consultant post in addition to a concomitant investment in specialty doctor, CNS and pharmacy support. The development of the multidisciplinary team should free up Consultant time to deal with complex and new patients, reduce/avoid overbooking of outpatient clinics, provide additional capacity for virtual clinics activity, pharmacist and nurse led review clinics and would improve scheduling of procedures such as lumbar punctures, and bone marrow biopsies and the turnaround times for bone marrow aspirate reports. Stabilization of the team should enable further service improvements to benefit patients.

Western Trust

With the smallest of all the unit teams, the Western Trust bid focuses on the development of a sustainable team that can continue to transform services and meet growing demand. In particular the Trust would like to recruit additional specialty doctors who could contribute to the middle tier rota, making the on-call arrangements more attractive thereby improving consultant recruitment. Enhanced CNS support within the team would enable the provision of outreach clinics to Omagh and Fermanagh and release valuable consultant resource to see new and complex review patients. Western Trust has an historic arrangement whereby patients from the Southern sector of the Trust are seen by consultants in Belfast Trust (Belfast receives 6PAs of funding which are allocated across its team) – If the Trust was able to secure additional consultant resource and supporting infrastructure it would enable the repatriation of those patients back to Western Trust.

South Eastern Trust

South Eastern Trust has appointed a fifth consultant on a locum basis to meet service demand. The trust is seeking recurrent funding to support this post in order to create a

more sustainable team going forward. They have also requested and ANP and CNS posts to allow them to expand nurse led assessment, prescribing and review.

3.5 Conclusion

Similar to the oncology plan, the haematology plan focuses largely on the development of sustainable teams that will create the capacity for skills mix and innovation whilst simultaneously reducing clinical risk and improving the patient experience of care. The plan proposes a £3.63m investment over a 2 year period (cye 20/21 £1.17m). This investment would address the immediate risks within the service. In the longer term there may be benefit in undertaking a wider service review which would further support the reform and modernisation of care pathways and the development of a sustainable workforce plan.

4.0 Risk assessment

Six main risks were identified as a consequence of oncology and haematology pressures.

1. Consultant recruitment and retention challenges across the system may result in an inability to support clinics at certain locations due to lack of adequate consultant cover – there have been instances of this in the past two years.
2. Growth in waiting times for new and review patients due to inadequate consultant cover and support for clinics – it was felt that the requirement for social distancing at clinics as a consequence of COVID has further exacerbated this risk.
3. Inability to support the introduction of NICE Technical Appraisals due to inadequate nursing and pharmacy infrastructure – units are already struggling to support the introduction of immunotherapies with immunotherapy for Northern and Southern Trust patients provided at NICC.
4. Routine overbooking of clinics in order to meet growth in demand and manage waiting times leading to clinical risk and negative patient experience of care – while this remains a risk in the long-term, in the short term, the requirement for social distancing as a consequence of COVID will mean that clinics cannot be overbooked; this is likely to impact waiting times.
5. Lack of AOS support to deal with acute complications of treatment in evenings and at weekends. This carries the risk that patients are not managed appropriately or in a timely way. This risk is enhanced during COVID due to the need to ensure that these patients are managed on a COVID clean pathway.
6. Pressures on outpatient provision mean that consultants are struggling to consistently deliver ward rounds. This is leading to a reliance on speciality doctors at ward level and is impacting continuity of care, discharge planning and patient flow.

Appendix 4 provides a high level assessment of the risks, with all risks currently being assessed as “very high”. It also outlines how the proposed investment will mitigate the

risks. While the nature of the risks means that the potential impact will remain high, the likelihood of the risks happening is reduced with risk scores for risks 1-5 moving from “very high” risk to “high” risk and the score for risk 6 moving from “high” to “medium”.

5.0 Summary

In summary, both oncology and haematology services are under unprecedented pressure as a result of continued growth in demand for SACT. The service is in the unusual position of having a good number of trainees coming off programme in both oncology and haematology between now and 2022. It is essential that we invest now to both enhance our consultant numbers and to create sustainable teams that, through increased capacity, skills mix and transformation, can provide high quality and timely care. The plan, which encompasses learning from the COVID response, proposes an investment of £8.56m across oncology services and £3.63m across haematology services over the next 2 years. This investment will create additional capacity and importantly, will develop more sustainable teams providing a strong foundation from which to develop future services. The proposed investment in oncology services will provide a bridge to the implementation of the OST workforce plan as we await clarity on the future service model. While the investment in haematology services will stabilise services in the short term, there may be benefit in undertaking a broader review of the service to inform the service model and workforce requirements over the longer term.

Appendix 1. Breakdown of required nursing posts by band and by Trust

	Belfast	NT	ST	SET	West	Total
OST nursing gap						
Band 5 chemo nurse	5.72	3.07	1.15	4.08	1.88	**15.9**
Subtotal						***15.9***
AOS						
Band 8a ANP AOS	2.78	1	1	1		**5.78**
Band 7 CNS	3.12					**3.12**
Band 7 AOS nurse		1	1.77	1.4	1.24	**5.41**
Band 6 AOS Nurse						**0**
Band 5 AOS nurse					3.5	**3.5**
Subtotal	***5.9***	***2***	***2.77***	***2.4***	***4.74***	***17.81***
OST EWB / oncology prototype						
Band 8a ANP EWB		0.8	0.8	0.8		**2.4**
Bnd 8c Nurse consultant	1				1	**2**
Subtotal	***1***	***0.8***	***0.8***	***0.8***	***1***	***4.4***
Service improvement plans						
Band 3 nurse	1.12	0	0	0	0	1.12
Band 5 chemo nurse	1.92	2.6	0	0	0	4.52
Band 6 staff nurse	0	1	0	0	0	1
Band 7 ONP	7.32	0	0	1	2	10.32
Band 7 CNS nurse	3	0	0	0	2.44	5.44
Band 8a ANP	1.4	1	0	0	0	2.4
Band 8a Lead chemo nurse	1	0	0	0	0	1
Band 8s oncology consultant nurse	**0**	0	0	0	1	1
Subtotal	***15.76***	***4.6***	***0***	***1***	***5.44***	***26.80***
TOTAL	**28.38**	**10.47**	**4.72**	**8.28**	**13.06**	**64.91**

Appendix 2. Breakdown of required pharmacy posts by banding and by Trust.

Title	Banding	BT	NT	ST	SET	W	TOTAL
Pharmacist	8a	3.5	1		1		5.5
Pharmacist	7	2	1	2.43	2	1	8.43
Parmacist	6		1				1
Pharmacy Technician	5	1	2.2	1	1	2.6	7.8
Pharmacy Technician	4	6	1	1.26	1	1.4	10.66
Pharmacy Assistant	2	1	1	0.75	1	0.8	4.55
TOTAL		*13.5*	*7.2*	*5.44*	*6*	*5.8*	*37.94*

Appendix 3. Early Workforce Bid / Oncology Prototype Costings 2020/21

							Total WTE	Total		BT	NT	SET	ST	WT	Total
	BT	NT	SET	ST	WT	Total	No.	£		£	£	£	£	£	£
Band 8c	1				1	176,662	2	188,212		94,106	-	-	-	94,106	188,212
Band 3	0.5				0.5	23,234	1	29,824		14,912	-	-	-	14,912	29,824
Band 8a	-	0.8	0.8	0.8	tbc	124,636	2.4	160,982		-	53,661	53,661	53,661	-	160,982
Band 3	-	0.25	0.25	0.25	tbc	23,234	0.75	22,368		-	7,456	7,456	7,456	-	22,368
Specialty Doctor (1:5 rota to 1:8 rota - incl 4% allowance)					1	330,400	1	89,572		-	-	-	-	89,572	89,572
Specialty Doctor (excl on-call allowances)		1	1	1			3	258,241		-	86,080	86,080	86,080	-	258,241
Band 6	2	-	-	-	-	87,716	2	96,750		96,750	-	-	-	-	96,750
Band 7	1	-	-	-	-	52,492	1	60,037		60,037	-	-	-	-	60,037
Band 8a	3.5	-	-	-	1	283,322	4.5	301,841		234,765	-	-	-	67,076	301,841
Band 8b	2	-	-	-	1	225,804	3	240,564		160,376	-	-	-	80,188	240,564
Band 8b	1	-	-	-	-	12,307	1	13,112		13,112					13,112
Band 8a	2	-	-	-	-	125,921	2	134,151		134,151	-	-	-	-	134,151
Band 7	2	-	-	-	-	104,985	2	120,073		120,073	-	-	-	-	120,073
Band 6	1	-	-	-	-	43,858	1	48,375		48,375	-	-	-	-	48,375
Band 7	1	-	-	-	-	52,492	1	60,037		60,037	-	-	-	-	60,037
Band 7	-	-	-	-	1	60,492	1	60,037		-	-	-	-	60,037	60,037
Band 8a	-	-	-	-	1	31,480	1	67,076		-	-	-	-	67,076	67,076
TOTALS	**17**	**2.05**	**2.05**	**2.05**	**6.5**	**1,759,035**	**29.65**	**1,951,249**		**1,036,693**	**147,197**	**147,197**	**147,197**	**472,966**	**1,951,249**