

# **North of England Pharmacy Technical Services (PTS) Workforce Project Easy Read Summary**

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# Glossary

<b>ATMPs</b>	<p>Advanced Therapy Medicinal Products.</p> <p>An advanced therapy medicinal product is a biological medicinal product that can be classified as either one of or a combination of the following three categories: gene therapy, somatic cell therapy and tissue engineered products.</p>
<b>Aseptically Prepared Products</b>	Injectable medicines which are prepared using aseptic non-touch technique within a pharmacy cleanroom environment
<b>EI(97)52 audit</b>	An external audit of a hospital pharmacy departments responsible for preparing aseptic products under Section 10 exemption (see below). Audits are performed by Regional Quality Assurance Specialists.
<b>GPhC</b>	<p>General Pharmaceutical Council.</p> <p>The General Pharmaceutical Council (GPhC) is the independent regulator for pharmacists, pharmacy technicians and pharmacy premises in Great Britain</p>
<b>Licensed unit</b>	<p>Pharmaceutical manufacturing facility operating under a MHRA Manufacturers Specials Licence.</p> <p>Licensed units can prepare batches of pharmaceutical products.</p>
<b>MHRA</b>	<p>Medicines and Healthcare products Regulatory Agency - UK medicines regulator.</p> <p>The MHRA licence and inspect pharmaceutical manufacturing facilities.</p>
<b>QA / QC</b>	Quality Assurance / Quality Control
<b>Ready-to-administer product</b>	An injectable medicine which has been prepared by pharmacy aseptic services and requires no further preparation by the clinical team prior to administration.
<b>QP</b>	<p>Qualified Person.</p> <p>A Qualified Person (QP) is responsible for assuring the quality of medicines manufactured under a manufacturing authorisation.</p>
<b>RPS</b>	<p>Royal Pharmaceutical Society.</p> <p>Professional body for Pharmacists and Pharmaceutical Scientists.</p>
<b>Section 10 / Unlicensed facility</b>	Pharmacy led facility which prepares patient specific ready-to-administer medicines under the supervision of a Pharmacist. Preparation is permitted under an exemption (Section 10) of the Medicines Act.
<b>TSET</b>	<p>NHS Technical Specialist Education and Training (TSET) Group.</p> <p>A committee of active, pharmaceutical technical specialists, who represent the principal specialist areas of hospital based pharmaceutical production, (sterile, aseptic and non-sterile), radiopharmacy, quality assurance and quality control.</p>

# Introduction

## Background:

The Pharmacy Technical Workforce comprises Aseptic Preparation, Manufacturing, Radiopharmacy, Quality Assurance and Quality Control. The NHS pharmacy technical workforce is critical to the safe and effective preparation, delivery and quality assurance of a range of highly specialised and bespoke medicinal products to patients. This including ready-to-administer presentations of parenteral nutrition for premature neonates, intravenous chemotherapy for outpatients and radiopharmaceuticals for diagnostic imaging. They are often required to be supplied in a way that enables the delivery of medicines according to clinically proven protocols and efficient scheduling of treatment and investigations. These products may be outsourced or prepared in specialist NHS preparation units.

The Chief Pharmacist networks in the North of England identified the urgent need for a scoping exercise to identify the workforce issues across all grades and workforce groups, particularly critical posts.

## Key drivers for the scoping exercise include:



### **Sustained Growth in Service Demand and increasing use of novel therapies e.g., ATMPs and clinical trials**

Increased demand for aseptic products (approximately 5% per annum) with the need to expand current services to meet this demand.<sup>1</sup> Approximately 50% of clinical trials require aseptic services support.



### **MHRA and EL Audit Findings:**

Loss of knowledge and experience in the technical workforce has been cited as a key area of concern by regulators inspecting both licensed and Section 10 aseptic services (MHRA and EL audit). There has been a significant increase in major and critical deficiencies relating to lack of appropriate knowledge and skills in this workforce which have been identified as a significant risk to patient safety and has led to the MHRA placing limitations on both commercial and NHS aseptic compounding capacity.



### **Resilience of Commercial Sector:**

Significant fragility of commercial market has been reported, increasing the need for resilient NHS services – outsourcing is not the solution.

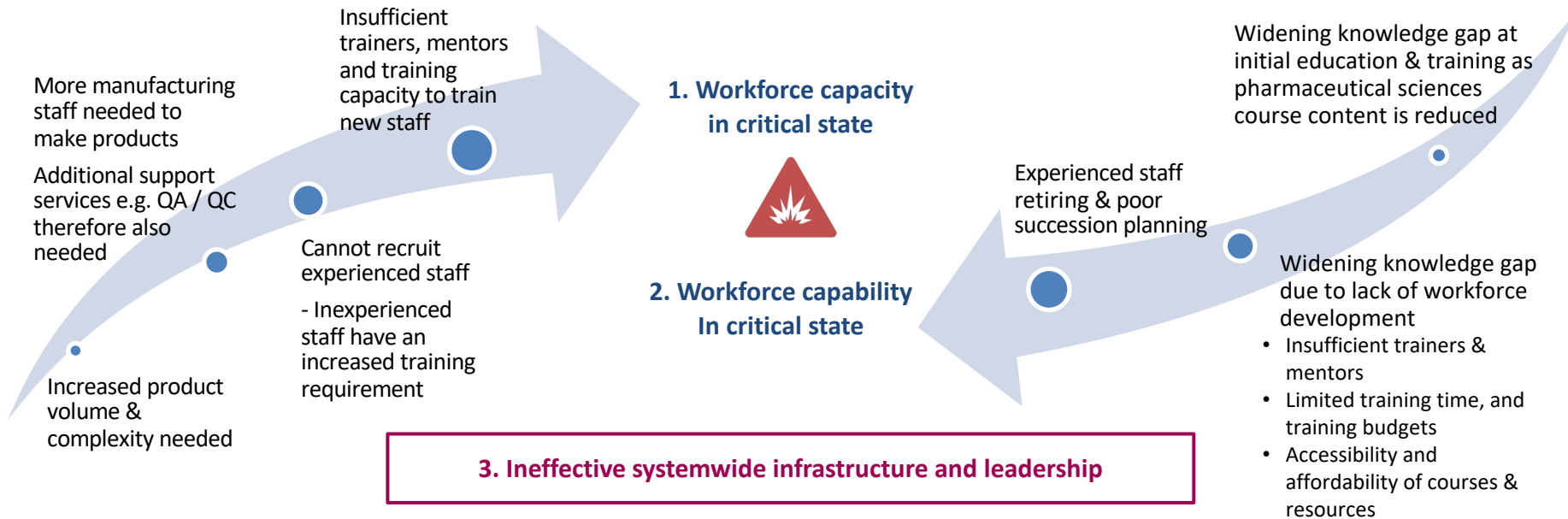


### **Resilience of NHS Workforce:**

Lack of resilience in the workforce, and shortages of skilled, knowledgeable staff. In addition, senior experienced leaders have retired / are due to retire within the next 5 years.

## Executive Summary of Key Findings

The Pharmacy technical workforce is in a critical state and the situation is in decline. Knowledge and skills are diminishing as experienced staff retire and there is limited capability and capacity to develop this workforce. If this trend is not reversed it is likely patient care will be impacted through increased patient safety incidents, the inability to provide specific therapies and treatment delays in critical services.



Outsourcing alone is not the solution to this problem. Capacity in the commercial sector has not been able to consistently meet demand in terms of quantities and turnaround for several years. Increased capacity, resilience and growth of the workforce is therefore needed across both NHS and the commercial sector to ensure safe, high quality, resilient supply of aseptic medicines.

Provision of ready-to-administer critical injectable medicines by Pharmacy aseptic units is essential for patient care both hospital and community settings e.g. homecare. The provision of these doses has a significant benefit to the health economy by releasing nursing time to care for patients

# Part 1 Overview of Findings: Current State of Workforce

## Workforce Capacity

- ✓ There is insufficient workforce capacity to meet service demand. This is significantly impacting on the capability to grow and diversify service provision.

## Workforce Capability

- ✓ There has been a knowledge drain as experienced leaders retire without adequate local succession planning.
  - Impacting on the capability of some services
  - Increasing area of concern to regulators

## Initiatives

- ✓ Local and national initiatives have been established to create novel workforce groups. Successes have been noted as these initiatives have filled *some* gaps but further work is required.

## Recruitment & Retention

- ✓ Widespread problems with recruitment and retention
- ✓ Influencing factors include:
  - a perceived negative image of technical services,
  - a lack of perceived career opportunities,
  - a reduced pool of potential candidates due to the Pharmacy profession’s diversification and expansion
- ✓ Limited routes of entry
- ✓ Significant barriers to services ‘growing their own’ workforce
  - agenda for change job profiles and job descriptions
  - lack of local active plans for succession to grow the leaders of the future

## Part 2 Overview of Findings: Current State of Education & Training Infrastructure

### In-House Training & Assessment Programmes

- There is significant and widespread variation within in-house training and assessment programmes limiting the opportunity for 'fast track' training and cross-organisational assurance of competence.
- Training programmes focus on providing operational skills to entry level staff with less emphasis on underpinning knowledge and continued professional development.

### Trainers, Mentors & Training Capacity

There is a lack of time and resource dedicated to workforce development due to insufficient numbers of trainers and mentors across the system and local service pressures.

The impact of this includes;

- Training resource is focused on entry level staff to 'do the doing' rather than developing staff into more complex senior roles
- Recruitment of new staff is widely perceived as an additional burden
- Poor learning culture
- Poor morale and limiting career progression

Local trainers are predominantly technical experts 'the how' without access to subject matter experts.

Local trainers are isolated with limited opportunity to further develop their training skills – insufficient "train the trainer" or support infrastructure.

## Part 2 Overview of Findings: Current State of Education & Training Infrastructure

### Qualifications

- Role profiles have changed over time and qualifications have not been adapted accordingly, resulting in a knowledge gap which has been widened further as entry level qualifications are no longer fit for purpose.
- There are insufficient qualifications to develop the workforce across all areas, notably between entry level and Pharmaceutical Technology and Quality Assurance, and within specialist services such as Quality Control.
- The Science Manufacturing Technician apprenticeship pilot is an improvement but integration into career pathways is key to success.

### Courses and Resources

Specialist courses are deemed “valuable” and attendance was predominantly to acquire underpinning knowledge.

However key issues include:

- Accessibility due to the current delivery model - funding, geography and workplace capacity.
- Attendance is generally on an ad-hoc basis as courses are not linked personal development plans.
- Gaps in course content with local and regional initiatives being established aiming to bridge these gaps.

Limited national resources are currently available.

# Recommendations

## System Leadership, Transformation & Investment

The capacity and capability of the pharmacy technical workforce is in a critical state and unless addressed will have a significant impact on NHS services requiring a supply of ready-to-administer critical injectable medicines. A transformation of workforce planning and development is urgently needed which will require system wide multidisciplinary leadership, collaboration and significant investment.

A national strategy is required to:

1. Address the urgent workforce shortage and develop a pipeline to grow the workforce needed for the future.
2. Upskill the workforce to address the widening knowledge gap to ensure the safe and effective preparation of medicines.
3. Transform the training and development infrastructure across the whole system.

The strategy should embrace the principles of the NHS People Plan and include the following:

- Raising the profile and awareness of technical services and their essential roles in supporting high quality 21<sup>st</sup> century care e.g., genomics, ATMPs, clinical trials and point of care manufacturing.
- A nationally co-ordinated recruitment drive to build and develop the workforce for the future.
- A programme of talent management and leadership development to support succession planning for senior posts.
- System-wide investment in workforce training and development infrastructure to grow the numbers of trainers & mentors
- Development of clear career pathways within technical services.
- Development of a national training and assessment programme aligned to future standardisation of best practice across the NHS to improve transferability of the workforce.
- Development of an on-line academy for technical services to support local trainers and trainees and improve access to resources (on-line training and assessment resources and courses).



# Recommendations – Pharmacy Technical Services

## Address the Shortage

### Recruitment Strategy is required

- ✓ Nationally co-ordinated
- ✓ Brochure showcasing variety of career opportunities within pharmacy technical services
- ✓ Actively market career & development opportunities e.g. careers events, promotion within schools, colleges and universities

### Review & revise syllabus of existing initial education and training for Pharmacists and Pharmacy Technicians

- ✓ Expand and strengthen applied Pharmaceutical Science content to:
  - Underpin careers within technical services
  - Ensure patient-facing staff are knowledgeable about safe and effective preparation and administration of medicines

### Develop new routes into the profession

- ✓ Create a new bespoke entry level qualification
- ✓ Review Pharmacy AfC job profiles to include a novel workforce group
- ✓ Integrate a novel workforce into Technical Services career pathways
- ✓ Enable professional registration of a novel workforce

## Address the Knowledge Gap

### Improve access and availability of trainers, assessors and mentors

### Train the new workforce

- ✓ Increasing local training capacity
- ✓ Additional time and resources to be allocated to workforce development

### Up-skill the current workforce

- ✓ Utilise new technology to improve access to specialists / subject matter experts
- ✓ Additional time and resources to be allocated to workforce development
- ✓ Set up trainer networks
- ✓ Train the trainer programmes & qualifications
- ✓ Introduce teacher practitioners within technical services to support the development of advanced practitioners
- ✓ Advanced & consultant level practice development / training posts
- ✓ Improve opportunities to work alongside specialists e.g. fellowships, secondments

### Improve access to resources

- ✓ Equity of access, regardless of geographical location
- ✓ Improve and facilitate easy access to funding for training

## Transform Infrastructure

### Embrace new technology to improve access and availability to trainers and training materials

- ✓ Establish an Academy for Pharmacy Technical Services
- ✓ E-learning and assessment packages
- ✓ Ensure central development and co-ordination of resources
- ✓ On-line access to trainers, assessors and mentors
- ✓ Interactive learning and demonstrations of best practice utilising a wide range of learning tools

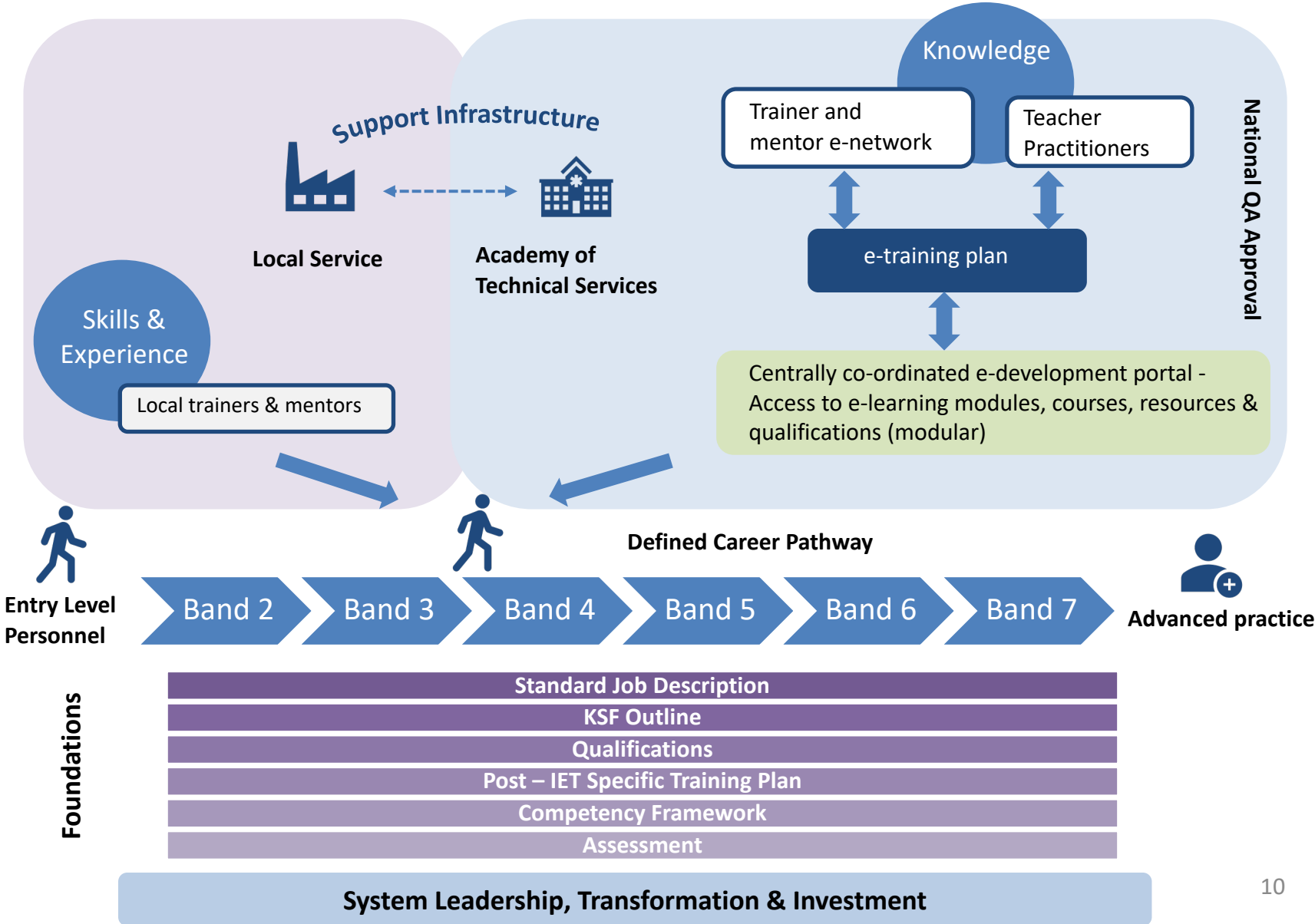
### Develop defined career pathways

- ✓ Common job descriptions
- ✓ Standardised competency framework
- ✓ Common training and assessment pathway
- ✓ Specific post initial education and training practice qualifications
- ✓ Apprenticeships

### Develop a skills passport

- ✓ Improve transferability of the workforce
- ✓ Fast-track training
- ✓ Drives standardisation of practice

# Recommendations – Pharmacy Technical Services Personalised Training Plan



# Recommendations – Clinical Pharmacy Services

An underpinning knowledge of pharmaceutical sciences is essential for any pharmacist to perform or provide oversight of medicine preparation under section 10

## Service needs requiring pharmaceutical science knowledge and skills:

- Oversight safe and effective preparation and administration of medicines
- Governance and oversight of innovative medicines e.g. advanced therapy medicinal products and point of care medicines
- Medicines formulation
- Homecare services
- Chemotherapy and parenteral nutrition services
- Provision of radiopharmaceuticals
- Medicines compatibility
- Cold chain – storage and distribution
- Modifying formulations e.g. for paediatric doses

*Pharmaceutical Science knowledge and skills are needed across primary and secondary care.*

## Addressing the Current Knowledge Gap & Planning for the Future

- ✓ Review & revise syllabus of existing initial education and training for Pharmacists and Pharmacy Technicians.
- ✓ Expand and strengthen **applied** Pharmaceutical Science content to ensure patient-facing staff are knowledgeable about safe and effective preparation and administration of medicines.
- ✓ Improve integration of Technical and Clinical teams enabling support from technical subject matter expert networks to aid e.g. delivery of innovative medicines such as point of care manufacture into the clinical areas.
- ✓ Utilise the on-line academy of Pharmaceutical Science to provide bespoke tailored courses and resources to develop the clinical Pharmacy workforce in specialist areas which overlap with technical specialities e.g. safe innovative medicine manufacturing and administration.
- ✓ Teaching relevant and applied elements of Pharmaceutical Science and technology when teaching specialist clinical modules requiring the provision of high risk ready-to-administer injectable medicines e.g. oncology

# Recommendations

## Promoting Standardisation and Continuous Quality Improvement

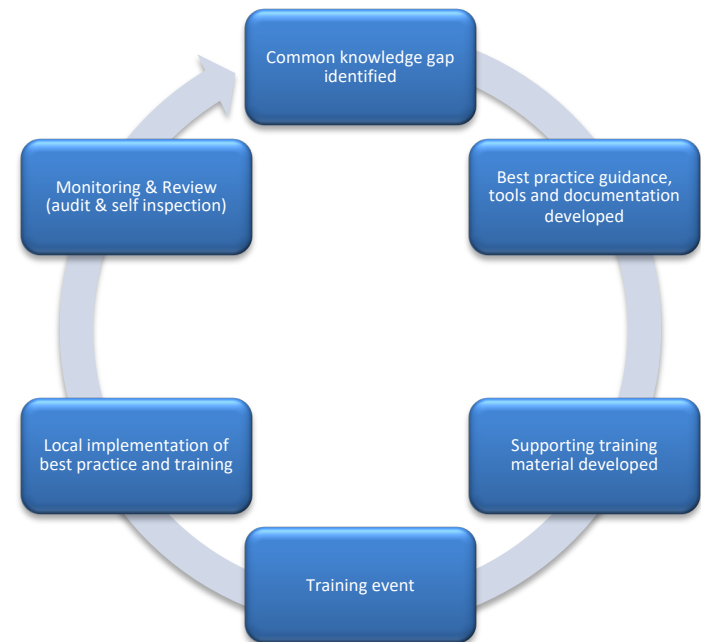
Training courses & resources content need to be:

- Service-led
- Responsive to knowledge gaps identified through audit & inspection
- Aligned to the development & implementation of best practice guidance and resources to help drive standardisation
- Compliant with current regulations
- Authorised and accredited by the NHS (TSET)
- Adopted by ICS training networks and future hub and spoke models
- Co-ordinated and delivered via a National Academy working in collaboration with TSET
- Integrated into local training programmes
- Aligned to career pathways, job profiles and personal development plans

Education & Training providers should be commissioned to deliver material against service specifications developed by TSET on behalf of service users

Content should be constantly reviewed as part of a continuous improvement model to ensure course and resources reflect current and best practice across the NHS.

The NHS and Industry should work collaboratively to explore a common training programme to support workforce training & development across the system



# Thanks and Acknowledgements

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We are particularly grateful to all those who hosted site visits, completed questionnaires and submitted evidence. It was clear from the number and quality of responses received that 'workforce' is an extremely important issue and is a key area of concern both now and in the future.

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