Elective Care Respiratory Pathways
Cough

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Implementation Toolkit

Practical changes Trusts can make now using existing resources, before progressing to a business case for additional funding

Implementation Toolkit

What this toolkit is for

A practical step-by-step guide to help Trusts design, implement and improve a local chronic cough pathway, and is ready to be applied using existing data and resources.

What it helps achieve

Better referral quality, more appropriate cough management, improved patient flow and support for RTT improvement.

What sits behind it

Qualitative interviews, ALS sessions*, site-level implementation reports, pathway materials and cross-site learning from participating Trusts from September 2025-March 2026.

How to use it

Use the five implementation steps in order, then adapt the model to local service configuration.

Link to Primary care chronic cough pathway, Secondary care chronic cough pathway, and Patient self-management resource:

https://www.healthinnovationoxford.org/clinical-priorities/respiratory/elective-care-respiratory-programme/chronic-cough-elective-care-respiratory-programme/

* Action Learning Set (ALS): a structured, collaborative session where participating Trusts share experiences, challenges and progress to collectively problem-solve and improve their local cough pathways.

What this toolkit is for

This toolkit is designed as a practical, step-by-step guide to support NHS Trusts and to design, implement and continuously improve a chronic cough pathway that is tailored to their local context, and is ready to be applied using existing data and resources.

The overall aim is to enable earlier identification and more consistent management of chronic cough, reduce unwarranted variation in care, reduce RTT and improve patient outcomes and experience, while making best use of existing resources and supporting scalable, sustainable service models.

It translates learning from a national pilot programme into clear, actionable guidance that can be applied in Trusts, regardless of starting point. It outlines key components of an effective cough pathway, including referral criteria, service configuration, access to specialist interventions such as speech and language therapy, and approaches to patient flow and triage. In addition, it supports teams to identify gaps, build a local case for change, and implement improvements in a structured way.

The toolkit is intended for clinical leads, operational managers, commissioners and multidisciplinary teams involved in respiratory care, providing a shared framework to align stakeholders and support coordinated delivery.

How To Use This Toolkit

This toolkit is designed to guide implementation. Trusts are encouraged to work through the five steps in sequence, as each stage builds on the previous one, from understanding the current state and defining the local problem, through to designing the pathway, implementing changes, and embedding continuous improvement.

Following the steps in order ensures a coherent, evidence based approach, helping teams avoid common pitfalls such as moving too quickly to solution design without fully articulating local constraints. Start by making small changes first.

While the steps provide a clear framework, the toolkit is not intended to be prescriptive. Trusts should adapt to reflect their local service configuration, workforce availability, local commissioning arrangements and operational priorities and patient population. This includes tailoring referral routes, aligning with existing pathways and workforce (e.g. respiratory, ENT, primary care), available diagnostics, and determining how best to integrate key components such as access to speech and language therapy.

The toolkit can be used flexibly, either as a full pathway redesign or to strengthen elements of an existing pathway. It is recommended that a multidisciplinary team works through the steps collaboratively to ensure local ownership, feasibility and long-term sustainability.

Executive Overview

Why chronic cough matters

Chronic cough is common and associated with poor quality of life. Pathways are understructured with repeat consultations, fragmented referrals, long waits, and variable access to the right intervention.

What the project has done

The cough project brought together site teams, faculty, qualitative insight, action learning set support and practical implementation tools to move from guidance to local service change.

What Trusts should do

Work through the five steps in sequence: understand the baseline, align stakeholders, design the pathway, build infrastructure, then pilot and refine.

The five step implementation guide

1. **Understand your current pathway**
2. **Identify gaps, stakeholders and ownership**
3. **Design the local pathway and referral model**
4. **Build supporting infrastructure around the pathway**
5. **Pilot, measure, evaluate and refine**

Strategic Context

The chronic cough project sits under the NHS England Respiratory Elective Care Transformation Programme, as part of the Respiratory Pathways Programme, delivered September 2025- March 2026, and ongoing until March 2027. Chronic cough has pervasive impacts on quality of life and is associated with increased healthcare use. In chronic cough, RTT can be prolonged by waiting list pressures and convoluted pathway structure. A patient may wait for a first appointment, then require investigations that could have been completed earlier, then return for review, then be referred again to another service, or remain in general clinics. A specific cough pathway reduces unnecessary delay at each of these points.

The project is closely aligned with NHS England priorities around reducing waits, improving productivity, standardising care where appropriate, and using pathway redesign to support elective recovery. It also aligns with wider NHS England emerging policy of referral management, advice and guidance models, and a stronger interface between primary care, diagnostics and specialty services.

The British Thoracic Society Clinical Statement on chronic cough in adults (2023) outlines a novel structured clinical approach, including assessment of treatable traits, recognition of refractory chronic cough and cough hypersensitivity, and the role of drugs and non-pharmacological intervention such as cough suppression therapy. The BTS cough guidance provides a sound clinical foundation for chronic cough management. However, implementation across the NHS remains uneven. Elective care pressures mean that Trusts are receptive to pathway redesign if it can demonstrably reduce avoidable workload and improve patient flow. Chronic cough presents a practical area where clinically sound care and elective improvement goals are aligned.

Chronic Cough: The Problem

Impact on patients

Chronic cough can be highly disruptive. It affects sleep, work, communication, continence, social confidence and mental wellbeing. It may also generate understandable anxiety about serious disease. For a proportion of patients, the burden arises not only from the cough itself but from the cumulative effect of repeated appointments and a sense that they are being moved around the system without a clear plan.

Impact on respiratory services

When pre-referral diagnostic tests are not consistently completed and treatable traits are not appropriately managed, patients are seen in secondary care without the baseline information needed for timely decision making. This can result in additional investigations after the first appointment, follow-up booked to review missing data, and longer times to either discharge or identification of refractory cough.

Relevance to RTT and elective recovery

Improving the pathway can support better triage, reduce avoidable delay, improve clinic allocation and help use specialist capacity more effectively, all leading to reduced RTT.

Key observations across participating Trusts:

- Most sites manage chronic cough within general respiratory services rather than through a dedicated pathway.
- Referral quality from primary care is variable, with inconsistent diagnostic tests and treatable traits already performed.
- Access to speech and language therapy for cough suppression therapy is the single most common delivery gap.
- Expertise often sits with one or two interested consultants rather than being distributed across a department.
- Data collection is weak because chronic cough is not consistently coded and often mixed with general respiratory pathways.

Why is Assessing Cough a Challenge?

1

Workforce constraints and capability gaps
Limited specialist knowledge of chronic cough across respiratory and primary care can lead to inconsistent care. Access to key services, particularly speech and language therapy (SLT) for cough suppression, is often constrained, creating bottlenecks and limiting pathway effectiveness.

2

Primary care pressures and incentive misalignment
Primary care is typically the first point of contact, but time pressures, competing priorities and limited incentives to manage chronic cough holistically can result in variable initial assessment, repeated presentations, or early referral without optimisation.

3

Fragmented pathways and unclear ownership
Chronic cough often sits across multiple specialties (respiratory, ENT, gastroenterology), with often no single point of ownership. This can lead to disjointed referral routes, duplication of investigations, and patients cycling through services without resolution.

4

Limited data, coding and visibility
Chronic cough is not consistently coded or easily identifiable in data systems, making it difficult for organisations to understand demand, track outcomes, or build a robust case for service change.

5

Access and pathway variation
There is significant variation in how services are configured locally, including differences in access to diagnostics, specialist clinics, and SLT. This results in inequitable patient experience and outcomes depending on location.

What The Chronic Cough Project Has Delivered So Far

National and local engagement → The project brought together clinicians and operational teams from multiple Trusts to test what implementation would look like in different local systems.

Qualitative interviews across participating Trusts → Interviews identified common barriers, service variation, support needs and recurring themes around workforce, data, coding, implementation challenges and local readiness.

Action learning and implementation support → The work has highlighted recurring workforce, delivery and commissioning gaps and provided a clearer picture of what Trusts need to implement the pathway. Trust specific reports captured current state, local opportunities, barriers, suggested actions and examples of emerging pathway models.

Practical outputs → Primary and secondary care pathways, patient self-management resource, Trust specific reports, qualitative analysis of cough management at each Trust, minimum data set for collection, and this implementation toolkit.

Optimal Cough Pathway

Primary care assessment

History, red flags, medication review, smoking status, baseline investigations and initial treatable trait management.

Structured referral or advice and guidance

Use a simple checklist or eRS proforma so referrals arrive with core information. Align with national Advice & Guidance models to strengthen referral management and pathway efficiency

Secondary care triage

Determine whether the patient is best managed in respiratory, ENT-linked routes, virtual triage or a dedicated cough model.

Specialist management

Assess treatable traits, diagnose refractory cough, involve SLT where appropriate and consider pharmacological options when indicated.

Follow-up and self-management

Provide clear patient information, track outcomes and reduce unnecessary repeat appointments.

Primary care

The aim is to enable early management of common causes (e.g. stop smoking, ACE inhibitors, treat asthma), identify serious pathology, and avoid unnecessary specialist referral.

Secondary care focus

The route should help identify treatable traits, diagnose refractory cough and provide patients with personalised therapy in-the most appropriate setting.

Local adaptation

Trusts should adapt this flow according to diagnostics, clinical capability, ENT configuration, SLT access, advice and guidance arrangements and clinic capacity.

Principles of Local Adaptation

There is no single operating model. The aim is a locally workable pathway aligned to the same core principles.

- Local design should reflect referral systems, diagnostic access, community respiratory services, SLT capacity, ENT configuration, advice and guidance arrangements and clinic model.
- Some Trusts have moved through SLT cough suppression therapy; some through GP guidance, advice and guidance triage, or specialist cough clinics within general respiratory.
- The most successful approaches start with what exists locally, then build a pragmatic first version rather than waiting for a perfect end state.

Examples of starting points from participating Trusts:

- South Tyneside: SLT cough suppression therapy capacity development
- Gloucestershire: GP referral guidance and working towards a dedicated cough clinic model
- East and North Herts: Intelligent triage using diagnostics and advice
- Nottingham: Specialist cough expertise embedded within respiratory

Five Step Implementation Guide

Use these steps in order. Each step has specific outputs and decisions.

1 Understand the pathway

Map the current patient journey, baseline processes, referral routes and known pain points.

2 Identify gaps and stakeholders

Bring together the clinical, operational and other people who are involved in making the change happen.

3 Design the pathway

Agree the local pathway model, referral criteria, triage, and clinic route.

4 Build the supporting infrastructure

Put the practical enablers in place: infrastructure, SLT route, GP guidance, clinic model, patient information and data approach.

5 Pilot and refine the pathway

Pilot a workable pathway, measure, evaluate early learning, and adapt from feedback before wider spread.

Step 1: Understand Your Current Pathway

1 Start with the current state, not the ideal state

What this step is for

To establish where cough patients currently enter the system, what happens to them now, and where delay, variation or duplication arise.

Key questions to answer

How are cough patients currently referred? Where do they go first? What investigations happen before referral? Who currently manages refractory cough? Where is SLT involved, if at all?

Recommended outputs

A simple current state map, a description of the patient journey, and a list of known bottlenecks.

What to do in practice

- Review existing respiratory, ENT and primary care routes through which cough patients may arrive
- Map the most common patient journeys, including repeat consultations or multiple specialty contacts
- Identify whether the pathway is clinician dependent or supported by agreed local process
- Note where referrals arrive without sufficient detail or decision ready information

Why this matters

- Most participating Trusts started from a position in which chronic cough was managed within general respiratory services rather than through a clearly defined pathway.
- A baseline view is needed to understand current processes and challenges.

Step 2: Identify Gaps and Stakeholders

2

How to work through this step

- Run a focused stakeholder session using the current state map from Step 1
- Separate issues of capacity, capability, process and governance
- Identify dependencies outside respiratory, especially SLT, diagnostics, ENT and digital and eRS teams
- Name a clinical lead and a practical implementation lead

What must be agreed

- Who will sponsor the work?
- Who will make clinical decisions?
- Who will coordinate operational change?
- Who will manage data collection and implementation follow up?

Key learning from the project

Across sites, implementation barriers were rarely about clinical knowledge. More often they related to service capacity, cross specialty dependencies, local commissioning and absence of a clear lead for pathway development.

Service gaps to test for

- No SLT cough route
- Inconsistent referral criteria
- Long waits
- Unclear triage
- Limited data visibility
- No named project owner.

Step 2: Identify Gaps and Stakeholders

Core stakeholders

- Respiratory consultants
- SLT
- ENT
- Physiotherapy
- Service and outpatient managers
- Informatics and data teams
- Primary care leads/ PCNs
- ICBs partners

Referral route	Advice and guidance, direct referral or single point of access
Primary care	Which tests and treatable traits management are required before referral
Triage model	Who reviews referrals and how complex cough is identified early
Clinic model	Dedicated cough clinic, integrated respiratory clinic or virtual triage
SLT and follow up	How behavioural therapy, patient information and monitoring will work

Step 3: Design the Local Pathway

3 Adapt the core model to local services while keeping the principles consistent

Referral route

Advice and guidance, direct referral, or single point of access

Primary care referrals

What investigations, medication review and treatment trials are required before referral

Triage model

Who reviews referrals, use of advice and guidance, and how cough is directed to the most suitable clinic route

Clinic route

Integrated respiratory clinic, dedicated cough clinic, virtual triage, or hybrid model

SLT interface

How and when cough suppression therapy is accessed and by whom

Refractory cough decisions

Consider pharmacological options (morphine, neuromodulators) and non-pharmacological approaches e.g. SLT

What good design looks like

- Simple enough for referrers to use
- Clear enough that patients are routed to the right setting earlier
- Realistic about SLT, clinic and diagnostic capacity in the local system
- Documented in a form that can be shared, tested and revised

Useful outputs from this step

A local pathway diagram, referral criteria or eRS template, triage rules, and an agreed description of the clinic model and SLT route.

Step 3: Design the Local Pathway

From primary care to secondary care model

Before referral from primary care

- Chest X-ray, spirometry, FeNO and blood eosinophil count where available
- Medication review (stop ACEI medication)
- Smoking review and smoking cessation advice
- Are there any 'red flags'
- Clear summary of symptom history, red flags and treatment trials already attempted
- Simple, structured referral guidance embedded into routine processes where possible

Within secondary care

- Assess and manage underlying disease and treatable traits
- Diagnose refractory chronic cough where appropriate
- Use the most appropriate clinic route and involve ENT, SLT or other specialties when indicated.
- Consider behavioural approaches and pharmacological options for refractory cough within a safe governance model.

Step 4: Build the Supporting Infrastructure

Clinic model

Confirm whether the local model is a dedicated cough clinic, integrated respiratory clinic, virtual triage model or hybrid arrangement. Develop triage processes.

Primary care and patient materials

Prepare GP referral guidance, eRS wording, referral criteria, use of advice and guidance, and self-management information so the pathway is usable from day one.

Governance

Set out booking processes, clinical leadership, admin support, monitoring, shared care SOPs, escalation routes and how the pathway will be governed in routine service delivery.

SLT route

Define how cough suppression therapy will be accessed, who will deliver it, what training is needed and what current capacity gaps exist.

Digital and data

Agree how referrals will be tracked, what minimum dataset will be collected and what practical local workarounds are needed if coding is weak.

Pharmacological and specialist options

Clarify the local approach to neuromodulators and other refractory cough decisions, including when specialist review is needed.

Step 5: Pilot, Measure, Evaluate and Refine

5 Start small and practical and improve iteratively

Pilot on a realistic scale

Start with one clinic route, a manageable cohort or a limited implementation period rather than waiting for a perfect whole pathway solution.

Collect a minimum dataset

Track referral numbers and information, waiting time to clinic and pathway stage, SLT referrals, and agreed local operational and patient experience measures.

Review qualitative feedback

Capture what clinicians, operational teams and patients say about whether the pathway is working in practice.

Refine the model

Use early data and implementation learning to improve referral guidance, adjust triage and strengthen the business case.

Practical measurement approach

Because chronic cough is not consistently coded, several Trusts have needed pragmatic workarounds such as prospective clinic logs, local tracking, and SLT activity recording during pilot phases. One cough code could be used for consistency e.g. ICD 5.03.

What success looks like early on

A clearer referral route, better information in referrals, more appropriate clinic allocation, evidence of SLT linkage where available, and a stronger understanding of demand and bottlenecks.

What to do next

Once the pilot is stable, refine the pathway, strengthen governance and consider scaling. See Trust progress reports as examples of how other Trusts have approached this stage.

Workforce, Quality and Infrastructure Considerations

Workforce skill model

Specialist respiratory input is needed, but expertise is often concentrated in one or two clinicians. Trusts may need to identify who has the strongest cough interest or experience and how knowledge will be spread.

Training frameworks

Trusts may need local scoping of training needs across respiratory, SLT and operational teams, including who will triage, who will deliver cough suppression therapy and how advice will be standardised.

Digital and reporting requirements

Trusts need practical referral wording, booking processes, local data collection methods and realistic coding arrangements if implementation is to be measurable.

SLT capacity and capability

SLT is frequently identified as a critical component of refractory cough management, but many sites face both service capacity constraints and training requirements before a local offer can be scaled.

Staffing ratios and clinic demand

There is not yet a robust national evidence base on how many SLT sessions, clinics or specialist hours are required. This is a key area for local scoping and future evaluation.

Quality and governance

The cough pathway should have a named lead, agreed referral standards, a mechanism for review and a route for future refinement as services mature.

Data and Metrics

Robust data is critical to support a credible business case for a chronic cough pathway. It enables Trusts to clearly demonstrate demand, pathway performance, clinical outcomes, and overall system value. Without a defined dataset, it is difficult to evidence need, track improvement, or justify ongoing and future investment. One cough code could be used for consistency e.g. ICD 5.03.

Early and consistent data collection allows services to move from assumptions to evidence, supporting both local decision-making and wider system engagement.

Challenges:

- Coding is variable and cough can sit under many respiratory presentations
- There are over 190 codes for cough
- Aetiology is multifactorial, so cough identification is imperfect
- Routine data alone may not tell the full story accurately.

Data and Metrics

Establishing a Core Dataset

While a comprehensive dataset may evolve over time, it is important to establish a core set of metrics from the outset to capture:

- Activity and demand
- Pathway performance
- Resource utilisation
- Clinical outcomes
- Costs

This ensures a consistent and structured approach to monitoring the pathway from early implementation.

Metric	Definition	Notes	Purpose
Demographics of patients referred to secondary care for chronic cough		Define demographics- ethnicity, age, deprivation level, gender	To understand risk stratification in local popualtion
Number of patients requiring initial appointments in primary care for a chronic cough			To provide insight into primary care demand
Number of patients referred for chronic cough (waiting list)	The total count of unique patients referred to the chronic cough pathway at each site during the evaluation period.	Specify the reporting period (e.g., monthly or quarterly). Exclude repeat referrals for the same patient within the period.	To provide insight into the total amount of patients being referred for chronic cough, to know whether the pathway can reduce the number of referrals and so reduce the number of patients entering the waiting list.
Number of patients urgently referred for chronic cough with red flag symptoms			
Number of assessments conducted for patients preseting with chronic cough in secondary care	The number of patients who received an assessment for chronic cough symptoms	Define what constitutes a chronic cough assessment for consistency.	To provide insight into the total amount of patients who actually attend for cough. It is important to understand how well Trust capacity is being utilised and if patients drop out which could be due to need met elsewhere, resolved, distance etc.
Number of patients provided with self-management resources in primary and secondary care	The count of patients who were given access to self-management tools or resources (digital or printed) as part of their pathway intervention.	Specify what qualifies as a self-management resource.	To understand resource utilisation and awareness
Time to diagnosis (diagnostic waiting time)			To provide insight into the time taken between receiving the first appointment and a diagnosis. This measures the time to receive a diagnosis to understand if the pathway can reduce the diagnostic waiting time required.
Number of patients that have had necessary diagnostic investigations performed for chronic cough in primary care	The total number of patients with specified diagnostic investigations (CXR/spiro/feno) performed for patients with chronic cough inprimary care, prior to the initial appointment in secondary care.	Define necessary tests as those what BTS Quality Standards suggest as minimum- CXR/spiro/feno	To provide insight into diagnostic test optimisation.
Time taken between first contact and diagnostic test(s)			Improved performance against key performance indicators including Diagnostics Waiting Times and Activity (DM01) - This includes Echocardiography
Number of patients that have had necessary diagnostic investigations performed for chronic cough in secondary care	The total number of patients with specified diagnostic investigations (CXR/spiro/feno) performed for patients with chronic cough in secondary care, following the initial appointment.	Define necessary tests as those what BTS Quality Standards suggest as minimum- CXR/spiro/feno	To understand if any improvements can be made in the primary care pathway for chronic cough/primary care awareness
Number of patients that have required additional diagnostic investigations performed for chronic cough in secondary care	The total number of patients with aditional diagnostic investigations performed for patients with chronic cough in secondary care, following the initial appointment.	Define additional investigtaions as CT/bronchoscopy/oesophageal studies	To provide insight into what diagnostic tests may be required for chronic cough patients
Number of patients assessed and only given therapy for identified traits (no empirical treatment) in secondary care			
Number of patients diagnosed with refractory chronic cough, and how many of those were given access to medication or SALT		Define medication as morphine, neuromodulators e.g. gabapentin/ pregabalin/ amitriptyline	
Number of patients diagnosed with cough syncope that were given driving advice in secondary care			
Number of patients discharged from the pathway (no further follow-up required) in secondary care	The number of patients who completed the pathway and were discharged with no further follow-up required for chronic cough.	Define discharge criteria clearly.	
Number of patients requiring ongoing follow-up, including patient initiated follow up, in secondary care			
Average time from referral to first secondary care appointment	Mean number of calendar days between the date of referral to the chronic cough pathway and the first appointment attended.	Exclude patients who did not attend.	Understand any changes to RTT
Average time from referral to discharge in secondary care	Mean number of calendar days between the date of referral to the chronic cough pathway and the discharge with no follow-up required for chronic cough.		Understand any changes to RTT

Data and Metrics

Starting Point:

An initial set of key quantitative metrics provides a practical and manageable starting point, particularly during early implementation when referral volumes may be low and data infrastructure is still developing.

Early data collection will:
- Support ongoing evaluation and service refinement
- Identify bottlenecks and inefficiencies in the pathway
- Inform workforce and capacity planning
- Provide evidence to strengthen business cases for investment and scale-up

Building Over Time:

- As the pathway matures, Trusts may expand their dataset to include:
- Additional quantitative metrics- more granular activity, cost, and outcome data
- Qualitative insights- patient and staff feedback to understand experience and impact

Practical Workarounds:

- Prospective data collection during pilot phases
- Clinic level logs and local tracking sheets
- SLT activity tracking and simple outcome measures
- Use of local reports to build a business case
- Use a common code across the Trust for cough

Challenges and Barriers to Implementation

Challenges	Solutions
Reliance on short-term or pilot funding, with unclear long-term financial planning • Services often established using non-recurrent funding • Limited ability to plan workforce or scale sustainably • Uncertainty reduces commitment from stakeholders	• Develop early business case using activity and cost data • Demonstrate cost avoidance (reduced duplication, demand control) • Position pathway as core service, not pilot
Limited MDT capacity to implement a cough pathway (consultant, specialist, SLT) • High demand on respiratory consultants • SLT access often the biggest bottleneck • Limited protected time for MDT participation	• Implement triage model (not all patients require MDT) • Use banded workforce model (consultant oversight, AHP led delivery) • Consider virtual MDT / batch review models • Prioritise SLT capacity planning early
Lack of operational coordination to manage referrals, pathways, and patient flow • No clear ownership of pathway coordination • Delays in triage, booking, and follow-up • Patients "lost" between services	• Establish dedicated pathway coordinator/admin function • Define clear referral to triage to MDT to follow-up process • Use simple tracking tools (basic spreadsheets initially)
Variation in access to diagnostics (e.g. spirometry, FeNO), particularly in primary care • Inconsistent access across primary/community care • Delays in completing baseline investigations • Duplicate testing across services	• Define minimum diagnostic set prior to referral • Align with primary care pathways and guidance • Reduce duplication via shared protocols and visibility • Use of Community Diagnostic Centres for additional testing (cough 'bundle' due to be rolled out)
Competing priorities within Trusts • Respiratory services already under pressure • Cough pathway seen as "non-essential" vs other priorities • Limited leadership bandwidth	• Align pathway to system priorities (RTT, demand reduction, elective recovery) • Position as solution to existing pressures, not additional work • Use data and early wins to build momentum

Challenges and Barriers to Implementation

Challenges	Solutions
Inadequate data infrastructure infrastructure to understand demand, outcomes, and service utilisation. • Difficulty identifying chronic cough cohort • Limited visibility of activity, outcomes, and demand • Data spread across systems	• Start with core minimum dataset (referrals, RTT, outcomes) • Use pragmatic data collection approach (don't wait for perfect systems) • Build incrementally into dashboards over time
Difficulty demonstrating impact and value • Benefits often are indirect (e.g. avoided activity) • Lack of baseline data for comparison • Hard to link pathway to system savings	• Collect baseline data early (pre/post comparison) • Focus on clear KPIs (repeat attendances, pathway time, diagnostics) • Combine quantitative and qualitative evidence
Inconsistent understanding of pathway (especially in primary care) • Variable referral quality • Patients referred too early or too late • Lack of awareness of cough specific management	• Provide clear referral criteria and guidance • Better use of advice and guidance services • Deliver targeted primary care engagement (simple, practical messaging) • Use feedback loops to improve referral quality
Fragmented services and poor cross-specialty alignment • Cough can sit across respiratory, ENT, gastro • No clear ownership leads to duplication and delays • Patients cycle between services	• Establish clear clinical ownership of pathway • Create agreed cross-specialty model • Use MDT to provide single point of decision-making
Over-reliance on individual champions • Pathway dependent on 1–2 motivated clinicians • Risk to sustainability if individuals leave or reduce input	• Embed pathway into formal service model • Distribute ownership across MDT and operational leads • Document processes (SOPs) to reduce reliance on individuals
Limited integration with primary/community care • Pathway designed in secondary care but not embedded upstream • Poor referral quality and missed early intervention and treatment of treatable traits	• Co-design with primary and community care with support of PCRS/PCNs • Scale the work completed by 33n to support cough management in primary care • Use of the primary care cough pathway • Use of advice and guidance

Implementation Checklist

- ✓ Current pathway mapped
- ✓ Clinical and operational owners confirmed
- ✓ Local referral route agreed
- ✓ Primary care work-up and referral wording defined
- ✓ Clinic model and SLT route confirmed
- ✓ Minimum dataset agreed
- ✓ Pilot and review plan in place

Resources

- ✓ Primary and secondary care cough pathway diagrams: https://www.healthinnovationoxford.org/clinical-priorities/respiratory/elective-care-respiratory-programme/chronic-cough-elective-care-respiratory-programme/
- ✓ Patient self-management material resource https://www.healthinnovationoxford.org/clinical-priorities/respiratory/elective-care-respiratory-programme/chronic-cough-elective-care-respiratory-programme/
- ✓ Qualitative analysis from Trust interviews to understand real-world current baseline positions for implementing a cough pathway: Appendix A
- ✓ Trust progress reports following ALS sessions for further support with implementation troubleshooting tips and solutions: Appendix B
- ✓Chronic Cough Project Final Report Appendix C
- ✓ Data set for collection: Appendix D
- ✓Business Case Example: Appendix E

Case Studies

The following case studies are examples to demonstrate how Trusts have started to implement elements of a chronic cough pathway using existing resources, often beginning with small, practical changes and building over time.

Respiratory teams can use these as a starting point to test, adapt and refine approaches in a pragmatic and iterative way.

Case Study 1: Gloucestershire

Improved referral quality through GP guidance

Starting Point (Challenge)

- High volume of referrals into respiratory with variable quality and incomplete work up
- Common gaps:
- No spirometry or FeNO
- No medication review (e.g. ACE inhibitors not stopped)
- No clear documentation of trials (e.g. inhalers, reflux treatment)
- Patients often arrived:
- With incomplete information
- Requiring further investigations, leading to delayed diagnosis and repeat appointments

What They Did

- Developed a simple, structured referral framework
- Defined a minimum pre-referral standard:
- Chest X-ray
- Spirometry
- FeNO (where available)
- Medication and smoking review
- Introduced:
- Clear prompts for treatable traits (asthma, reflux, ACEi, smoking)
- Embedded into:
- eRS referral guidance
- Primary care communications
- Reinforced through:
- Informal engagement with GPs
- Iterative feedback on referrals which needed improved quality

Challenges and How They Managed Them

- GP engagement initially low. Solution: kept guidance short, simple, and practical
- Diagnostics not always available in primary care. Solution: defined "best available minimum" rather than ideal
- GP Resistance to additional steps. Solution: emphasised this reduces repeat work and speeds up decisions

Expected Impact/Early Progress

- Improved consistency and completeness of referrals
- Increased proportion of patients:
- Decision ready at first appointment
- Reduction in:
- Follow-up appointments for missing diagnostics
- Better triage and clinic allocation

What Other Trusts Can Copy

- Start with a minimum viable referral standard
- Embed into existing systems (eRS)
- Use feedback loops

Case Study 2: East and North Hertforshire

Introducing intelligent triage

Starting Point (Challenge)

- All cough referrals entering general respiratory clinics
- No differentiation between:
- Simple cough
- Complex / refractory cases
- Result:
- Inefficient use of clinic capacity
- Long waits
- Patients seen in the wrong setting

What They Did

- Introduced a clinician-led triage model
- Used:
- Referral information
- Available diagnostics
- Created simple triage categories:
- Suitable for general respiratory
- Likely refractory cough
- Suitable for Advice and Guidance
- Integrated:
- Advice and Guidance for borderline cases
- Early redirection without clinic attendance

Challenges and How They Managed Them

- Referral information inconsistent. Solution: linked triage with improving referral standards
- Consultant time pressures. Solution: started with small volume pilot triage sessions
- No formal system initially. Solution: used manual triage and clinic lists

Expected Impact / Early Progress

- Improved clinic allocation and prioritisation
- Reduced unnecessary face-to-face appointments
- Better use of consultant time and clinic capacity

What Other Trusts Can Copy

- Start with simple triage rules
- Pilot with small number of referrals
- Combine with Advice and Guidance

Case Study 3: Nottingham

Embedding cough expertise into existing clinics

Starting Point (Challenge)

- No formal cough pathway
- Expertise concentrated in 1- 2 clinicians with interest in cough
- Patients managed inconsistently depending on who they saw
- Risk of variation in care
- Lack of scalability

What They Did

- Embedded cough pathway principles into existing respiratory clinics
- Introduced:
- Structured assessment approach
- Treatable trait model
- Began to:
- Share knowledge across clinicians
- Align approach within the department

Challenges and How They Managed Them

- Limited time for training. Solution: used informal learning and peer support
- Competing priorities. Solution: focused on incremental change.
- Risk of overcomplicating. Solution: kept approach simple and repeatable

Expected Impact / Early Progress

- More consistent approach across clinicians
- Improved identification of refractory cough
- Reduced reliance on individual expertise

What Other Trusts Can Copy

- Start by standardising practice within existing clinics
- Don’t wait to create a new service
- Focus on consistency first, then scale

Case Study 4: South Tyneside

Developing SLT cough suppression therapy

Starting Point (Challenge)

- No established SLT pathway for chronic cough
- Refractory cough patients were cycling through respiratory services
- Limited treatment options

What They Did

- Developed SLT-led cough suppression therapy Defined:
  - Referral route into SLT
  - Patient selection criteria
- Focused on:
  - Behavioural therapy
  - Self-management strategies

Challenges and How They Managed Them

- Limited SLT capacity. Solution: prioritised most appropriate patients first
- Training requirements. Solution: built capability gradually
- Integration with respiratory. Solution: developed clear interface between services

Expected Impact / Early Progress

- Improved management of refractory chronic cough
- Reduced repeat respiratory appointments
- Improved patient experience

What Other Trusts Can Copy

- SLT integrated pathway doesn't need to be perfect to start
- Begin with a small cohort
- Ensure clear referral criteria

Case Study 5: Sandwell & West Birmingham

Pilot model for SLT and physio integration

Starting Point (Challenge)

- No formal pathway for non-pharmacological cough management
- Limited SLT capacity
- No structured approach to refractory cough cohort

What They Did

- Designed a targeted pilot model
- Integrated SLT and chest physiotherapy
- Focused on non-scoping therapeutics
- Identified a defined cohort of straightforward patients
- Developed patient questionnaire to measure benefit
- Planned a 3-6 month pilot with evaluation
- Sought external expertise (learning from other sites on the cough project)
- Explored future training e.g. diagnostics, endoscopy exposure

Challenges and How They Managed Them

- No established service. Solution: started small and controlled
- Limited workforce. Solution: focused on low complexity patients
- Uncertainty on outcomes. Solution: built in simple evaluation from start

Expected Impact / Early Progress

- Establish baseline evidence for SLT/physio model
- Inform future business case
- Build local capability

What Other Trusts Can Copy

- Pilot with a small cohort
- Defined timeframe
- Build evidence before scaling
- Use pilot to justify future funding

Scaling and Funding the Cough Pathway

Making the Case for Change

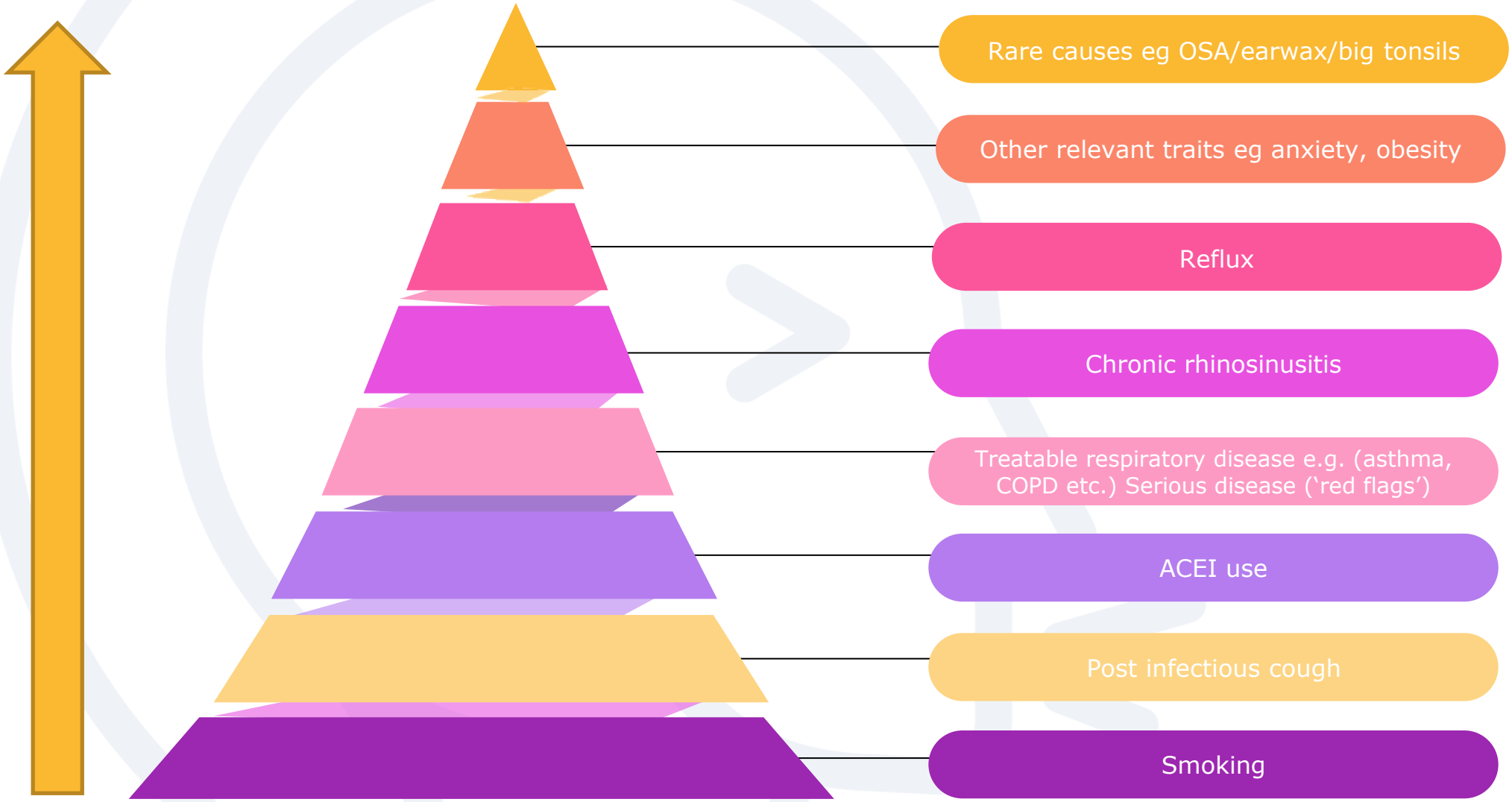
The majority of the cough pathway elements can be implemented using existing resources and working in a more efficient way. However, funding may be required for:

- Additional SLT/AHP capacity or training is needed
- New or expanded clinic capacity
- Dedicated MDT or pathway coordination roles
- Digital or data infrastructure investment

The following content can be used to build a business case for additional funding for implementing a cough pathway. It brings together evidence, best practice, and practical guidance to support systems in designing, implementing, and making the case for change.

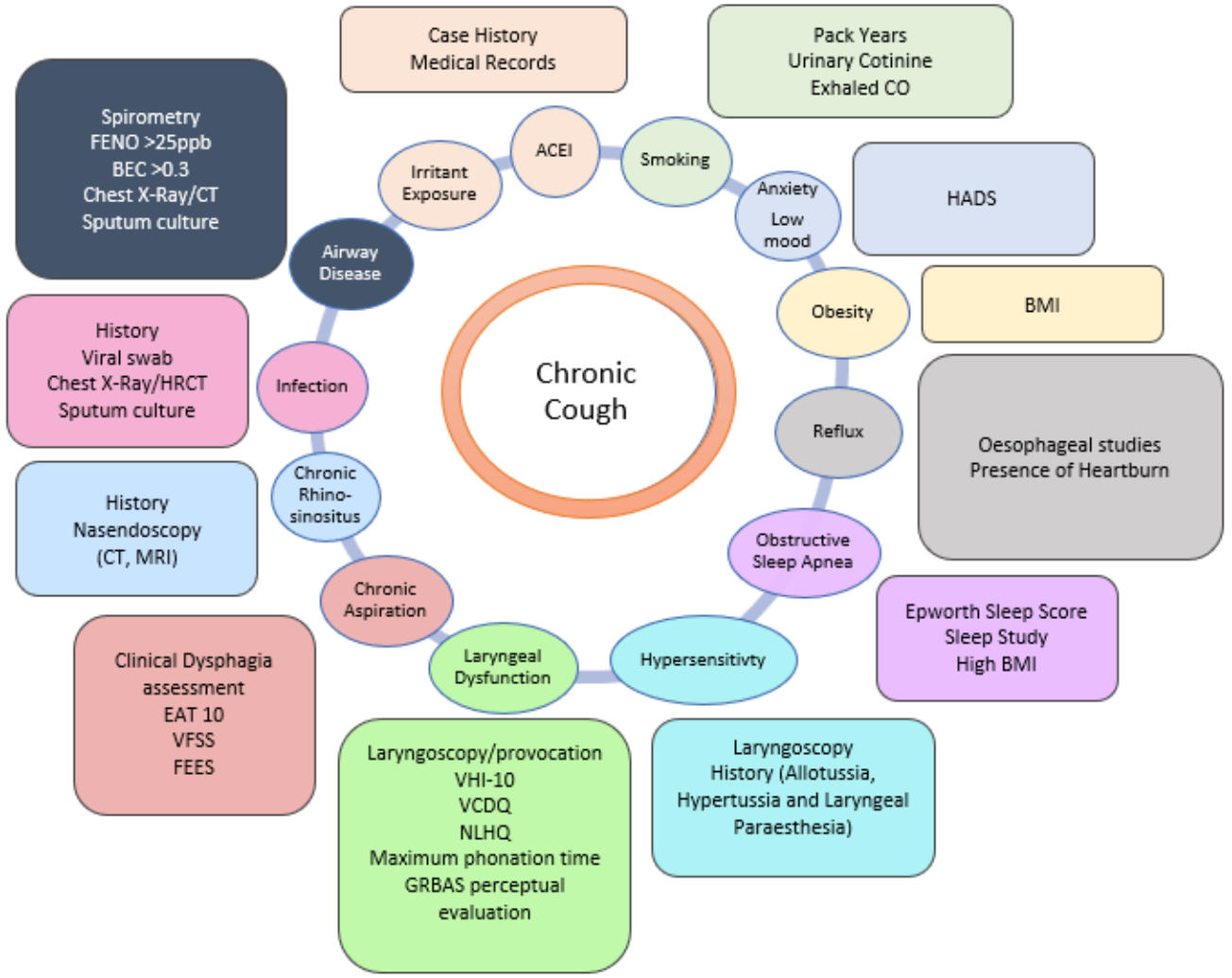
Cough Hypersensitivity

Less frequent /evidence weaker/ less likely to respond to treatment



More frequent / evidence stronger/ more likely to respond to treatment

Chronic Cough: Causes and Diagnoses



The Impact of Cough on the NHS

Chronic cough places a significant and under-recognised burden on the NHS. In the absence of a structured pathway, patients may undergo duplicate investigations and experience delays in receiving appropriate treatment, leading to inefficient use of healthcare resources[2]. Patients frequently present in primary care, often multiple times, with persistent symptoms that are difficult to resolve, contributing to increased GP workload and onward referrals to respiratory, ENT and gastroenterology services[1,2] . Evidence from UK and international studies demonstrates that chronic cough is associated with increased healthcare utilisation, including higher rates of diagnostic testing and outpatient activity, particularly as symptom burden persists[3,4].

In addition, limited access to key interventions such as speech and language therapy can further prolong pathways and increase demand on secondary care[1]. As a result, chronic cough represents a system-wide challenge, highlighting the need for more coordinated, pathway-driven approaches to improve outcomes while reducing avoidable healthcare utilisation.

1. British Thoracic Society (2023) *Chronic cough in adults: BTS clinical statement*. Available at: https://www.brit-thoracic.org.uk/document-library/clinical-statements/cough-in-adults/chronic-cough-in-adults/
2. Hull, J.H. et al. (2021) *Burden and impact of chronic cough in UK primary care: a dataset analysis*. BMJ Open, 11, e054832.
3. Cho, P.S.P. et al. (2022) *Healthcare utilisation and costs associated with chronic cough*. Current Medical Research and Opinion, 38(6), pp. 1021–1029.
4. McGarvey, L. et al. (2023) *The burden of chronic cough in the UK and impact on healthcare utilisation*. Journal of Allergy and Clinical Immunology: In Practice.

The Impact of Cough on the NHS

Common in the Population	• ~4.9% of UK adults annually[5] • 5–10% prevalence across NHS populations[5]
Patient Impact	• Reduced quality of life and productivity[1]-sleep disturbance, fatigue, psychological impact[5] • Persistent symptoms despite treatment[1] • Frustration due to delayed diagnosis and care[1]
High Healthcare Utilisation	• Increased use of GP, specialist, outpatient and emergency services, and often repeat attendances[1,2,5] • Multiple referrals across specialties[1,3]
High Primary Care Demand	• Ongoing symptoms contribute to repeat consultations[1,5] • High use of diagnostics (e.g. imaging, spirometry)[1,2]
Hidden System Burden	• Significant health economic burden in UK datasets[1]. True system burden likely underestimated[2,5] • Often managed across multiple pathways so difficult to identify and track demand[1,5] • Often coded under other conditions (e.g. asthma, reflux)[1,3]
Fragmented Care Pathways	• Managed across respiratory, ENT, gastro[3,4],and often no clear pathway ownership[3] • Duplication of investigations and delays in treatment[1,3] • Limited access to SLT creates bottlenecks[3]

1. Hull, J.H. et al. (2021) *Burden and impact of chronic cough in UK primary care: a dataset analysis*. BMJ Open, 11, e054832.
2. Cho, P.S.P. et al. (2022) *Healthcare utilisation and costs associated with chronic cough*. Current Medical Research and Opinion, 38(6), pp. 1021–1029.
3. British Thoracic Society (2023) *Chronic cough in adults: BTS clinical statement*. Available at: https://www.brit-thoracic.org.uk/document-library/clinical-statements/cough-in-adults/chronic-cough-in-adults/
4. Alhajjaj, M.S. and Bajaj, P. (2024) *Chronic cough*. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing. Available at: https://www.ncbi.nlm.nih.gov/books/NBK430791/
5. McGarvey, L. et al. (2023) *The burden of chronic cough in the UK and impact on healthcare utilisation*. Journal of Allergy and Clinical Immunology: In Practice.

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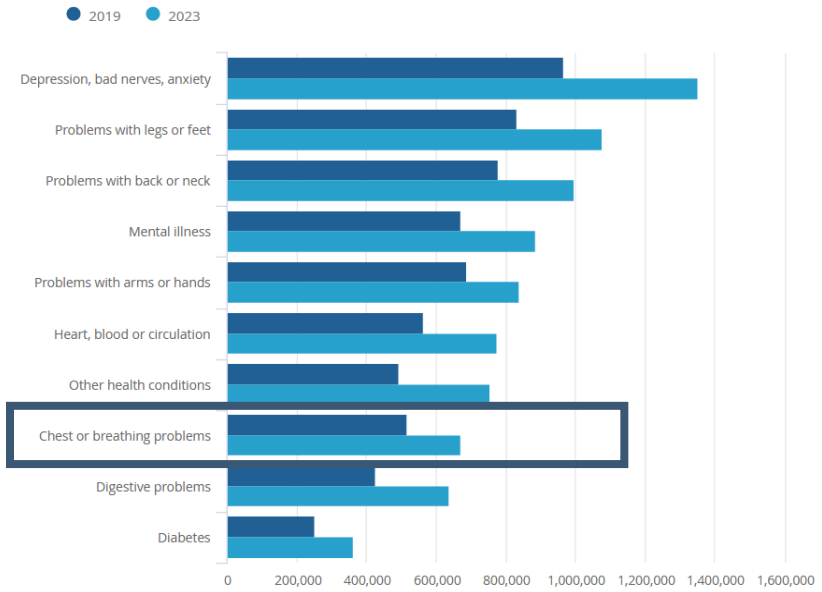
The Economic and Workforce Impact

Respiratory conditions are a significant contributor to lost working days from both sickness absences and periods of long-term sickness.

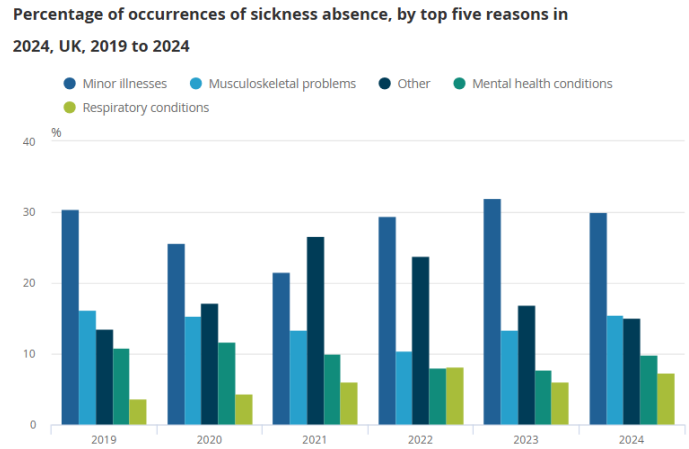
An estimated 148.9 million working days were lost because of sickness or injury in 2024; 7.3% of which were due to respiratory conditions.

The impact on QoL is comparable to other respiratory diseases such as chronic obstructive pulmonary disease (COPD)[1]. Patients experience numerous unpleasant symptoms; throat discomfort, chest pain, exhaustion, dizziness, syncope and UI[2]. Anxiety is common in chronic cough[3,4,5] alongside low mood which is more likely if pre-existing depression[6], fatigue, physical symptoms, negative illness beliefs and a lack of a clear illness narrative when their condition is unexplained. Concerns around serious underlying illness are common5. Sufferers report embarrassment and significant social effort directed at managing negative reactions of others to the cough[7]. Work absenteeism[8] and primary care attendance is frequent[9]. Repetitive investigations, trials of treatment and referrals to secondary care increase healthcare costs[9]. The 'over-the-counter' cough remedy market is significant, around £400m/pa in the UK.

Long-term sickness



Sickness absences



1. Chamberlain, S.A., Garrod, R., Douiri, A., Masefield, S., Powell, P., Bücher, C., Pandyan, A., Morice, A.H. and Birring, S.S. (2015) 'The impact of chronic cough: a cross-sectional European survey', *European Respiratory Journal*, 45(5), pp. 1479–1481.
2. Morice, A.H., Fontana, G.A., Belvisi, M.G., Birring, S.S., Chung, K.F., Dicpinigaitis, P.V., Kastelik, J.A., McGarvey, L.P. and Smith, J.A. (2007) 'ERS guidelines on the assessment of cough', *Pulmonary Pharmacology & Therapeutics*, 20(4), pp. 371–382.
3. Dicpinigaitis, P.V., Tso, R. and Banauch, G. (2006) 'Prevalence of depressive symptoms among patients with chronic cough', *Chest*, 130(6), pp. 1839–1843.
4. French, C.L., Irwin, R.S., Curley, F.J. and Krikorian, C.J. (1998) 'Impact of chronic cough on quality of life', *Archives of Internal Medicine*, 158(15), pp. 1657–1661.
5. McGarvey, L.P., Carton, C., Gamble, L.A., Heaney, L.G., Shepherd, R. and Ennis, M. (2006) 'Prevalence of psychomorbidity among patients with chronic cough', *Cough*, 2, p. 4.
6. Kelsall, A., Decalmer, S., Webster, D., Brown, N., McGuinness, K., Woodcock, A. and Smith, J.A. (2009) 'How do cough reflex sensitivity and subjective assessments correlate with objective cough counts during ambulatory monitoring?', *Thorax*, 64(6), pp. 540–544.
7. Chamberlain, S.A. et al. (2015)-(*same ERJ study — used again for social impact/embarrassment findings*)
8. Yousaf, N., Monteiro, W., Parker, D., Matos, S., Birring, S.S. (2013) 'Long-term outcome of patients with chronic cough referred to a specialist clinic', *European Respiratory Journal*, 42(4), pp. 1039–1046.
9. McGarvey, L.P.A. and Heaney, L.G. (2005) 'Clinical assessment and outcome measures in chronic cough', *Pulmonary Pharmacology & Therapeutics*, 17(6), pp. 349–354.

The Economic and Workforce Impact

How health innovations can help

		Innovation	Description	Health measures	Productivity impact*	Total impact*
Future potential innovations		**Return-to-work interventions for MSK**	Evidence suggests the potential impact of return-to-work interventions in MSK that are used quickly after an individual leaves work and used with complementary approaches. We have developed illustrative scenarios to understand the potential productivity impacts of these interventions.	▪ Improvements in pain levels	▪ Reduction in sick days (4.7mn avoided)	**£1.21bn**
		Improvements in medical technology targeting prevention	Evidence suggests the role of medical technology in preventing illnesses such as cancer and cardiovascular health. We have developed illustrative scenarios to understand the potential magnitude of impact.	▪ Prevention of cancer ▪ Prevention of cardiovascular health disease	▪ Cancer - deferred mortality (£876mn) ▪ Cardiovascular - deferred mortality (£624mn)	**£1.5bn**
Current innovation examples	Cardiovascular health	**Proactive care – cholesterol management**	Patient search and stratification tools and prioritisation pathways to help the primary care workforce prioritise high-risk patients, and resources and training to support the practices in delivering structured support for education, self-management and behaviour change for individuals. The tools are specific to a range of long-term conditions, including cardiovascular-related conditions. Our analysis focuses specifically on cholesterol and blood pressure optimisation.	▪ Reduction in CVD events	▪ Deferred mortality (£381mn) ▪ Employment impacts avoided (£750mn)	**£1.13bn**
		Proactive care – blood pressure optimisation		▪ Reduction in CVD events	▪ Deferred mortality (£403mn) ▪ Employment impacts avoided (£793mn)	**£1.20bn**
		Stroke AI imaging to speed up access to specialist stroke care	AI images to accelerate diagnosis and helps stroke clinicians make swift decisions relating to transfer and treatment. This includes speedier access to mechanical clot removal following a stroke, which can reduce mortality and disability. The adoption of stroke AI imaging was achieved in 2025 in all English acute stroke services. The productivity impact calculated is based on evidence from early stages of rollout.	▪ Decreased mortality following stroke ▪ Increased functional independence following stroke	▪ Deferred mortality (£26mn) ▪ Increased functional independence after stroke (£434mn)	**£459mn**
	Respiratory health	**FeNO testing**	FeNO testing rolled out nationally in primary care, contributing to a faster and more effective asthma diagnosis when used alongside a detailed clinical history and other tests.	▪ Increased asthma detection ▪ Increased asthma control	▪ Reduced absenteeism (£22mn) ▪ Improved in-work productivity (£127mn)	**£149mn**
		Increased uptake of biologic medicines	Implemented pathway change designed to increase the uptake of biologic medicines. Biologic medicines can transform patients' lives by reducing the long-term side effects of other treatments, such as steroids	▪ Increased number of individuals on biologics ▪ Increased asthma control	▪ Reduced absenteeism (£3mn) ▪ Improved in-work productivity (£17mn)	**£20mn**

Cough and Health Inequalities

Chronic cough is closely linked to wider health inequalities seen across respiratory disease in the UK, where outcomes are strongly influenced by socioeconomic factors, environment and access to care.

Respiratory disease remains the third biggest cause of death in England, with people living in the most deprived areas being around twice as likely to die from respiratory conditions compared to those in the least deprived areas[1,2]. These inequalities are driven by higher exposure to key risk factors such as smoking, air pollution, poor housing conditions and occupational hazards[1,2].

These same factors are also known contributors to chronic cough and its underlying conditions, meaning that patients from disadvantaged communities are more likely to experience persistent symptoms and poorer outcomes[2,3].

In addition, inequalities in healthcare access, health literacy and service availability can lead to delays in diagnosis, fragmented care and increased reliance on urgent services[1,4].

This contributes to a cycle where those most affected by chronic cough are also least likely to receive timely, coordinated management. As a result, chronic cough should be considered not only a clinical issue but also part of a broader inequality challenge within respiratory health, requiring targeted, pathway-based approaches that actively address variation in access, outcomes and experience across different population groups.

1. NHS England (2024) *Respiratory disease*. Available at: https://www.england.nhs.uk/ourwork/clinical-policy/respiratory-disease/
2. UK Parliament (2024) *Respiratory health*. Available at: https://researchbriefings.files.parliament.uk/documents/CDP-2024-0148/CDP-2024-0148.pdf
3. British Lung Foundation (2015) *Health inequalities and lung disease briefing*
4. Primary Care Respiratory Society (2023) *Health inequalities*. Available at: https://www.pcrs-uk.org

Population Health Analysis

Population health data provides an evidence-based foundation for the design and implementation of a breathlessness pathway. Analysing the prevalence of underlying conditions, patterns of service use and variation across local populations helps organisations quantify demand, identify unmet need and target interventions where they will have the greatest impact. It can also demonstrate the potential benefits of implementation, including improved outcomes, reduced emergency admissions and more efficient use of resources.

National data sources such as the Fingertips platform and SHAPE support this work through benchmarking, geographical analysis and service planning tools. Organisations should also work with local Business Intelligence teams to access practice-level data and develop more detailed modelling of pathway demand.

Population Health Data Can:

- Highlight inequalities in access, outcomes, and service utilisation, supporting a more equitable approach to care delivery.
- Identify gaps in current pathways and opportunities for earlier diagnosis and intervention.
- Support demand and capacity planning across the system, including workforce and diagnostic requirements.
- Strengthen the financial case by evidencing potential cost savings and return on investment.
- Enable benchmarking against regional or national comparators to demonstrate variation and opportunity for improvement.
- Provide a baseline for ongoing monitoring and evaluation, ensuring impact can be tracked over time.
- Support alignment with wider system priorities, including prevention, community-based care, and reducing pressure on urgent and emergency services.

Economics

The economic burden of chronic cough is significant but not well characterised, with available evidence varying in quality and methodology.

Despite this, there is consistent evidence that chronic cough represents a high-cost, high-utilisation condition across both primary and secondary care.

Common Condition	Prevalence estimated at ~5–10% of adults in the UK.[1,5]
Higher healthcare utilisation	Patients with chronic cough have more frequent healthcare contacts than those without cough.[1,2]
Substantial impact on quality of life	Associated with poor sleep, anxiety/depression, and reduced productivity.[1]
Costs driven by pathway inefficiency	Majority of costs relate to: • Repeated diagnostic investigations • Ongoing medication use • Referrals and specialist consultations [2,3,4,6]
Wide variation in cost estimates	Reported annual costs per patient range from approximately £700 to £3,600+, depending on severity and pathway complexity.[3,5]
Higher costs in complex cases	Patients with refractory or unexplained chronic cough can incur up to 3x higher healthcare costs than controls.[6]

1.McGarvey, L. et al. (2018) *Burden of chronic cough in the UK: National Health and Wellness Survey*. Available at: https://pmc.ncbi.nlm.nih.gov/articles/PMC10350679/
2.Bali, A. et al. (2023) *Economic burden of chronic cough: a systematic review and meta-analysis*.
3.Cho, P.S.P. et al. (2022) *Healthcare utilisation and costs associated with chronic cough*.
4.Hull, J.H. et al. (2021) *Burden and impact of chronic cough in UK primary care*. BMJ Open, 11, e054832.
5.Birring, S.S. et al. (2021) *Healthcare costs associated with chronic cough in the UK*.
6.Smith, J.A. et al. (2024) *Healthcare utilisation and cost burden of refractory chronic cough*.

Funding a Cough Pathway

Funding a Cough Pathway

1. Activity and Demand Assumptions

Define target population	e.g. chronic cough, asthma/COPD overlap, reflux, unexplained cough
Estimate population size	e.g. % prevalence × local population
Estimate referral volumes	Weekly or monthly inflow % appropriate for pathway vs total referrals
Identify referral sources	Primary care / acute / community / ENT / internal / A&G / self-referral (if relevant)
Assess current activity baseline	Patients currently seen in general respiratory clinics, referrals, waiting lists
Identify unmet/ hidden demand	Patients currently coded under other pathways

Where to get the data:

- PAS/ outpatient systems (clinic activity, appointment volumes)
- eRS/ referral systems (referral volumes, sources, patterns)
- Business Intelligence (BI) team reports (activity trends, demand analysis)
- Primary care data (GP systems, PCN data, referral behaviour)
- Specialty service data (respiratory, ENT, gastro clinic lists)
- Advice & Guidance data (volume and outcomes of A&G requests)
- Local audits or clinic logs (if coding is inconsistent)
- Population health tools (Fingertips, SHAPE, public health profiles)
- ICB/ system-level data packs (regional demand and benchmarking)

What this data demonstrates:

- Total pathway demand
- Pressure on existing clinics
- Volume for MDT pathway
- Basis for workforce modelling

Funding a Cough Pathway

2. Workforce and MDT Delivery Costs

Define core MDT	e.g. Consultant, Nurse Specialist, Physiotherapist, SLT
Confirm banding/ grade for each role	Band costs per staff member
Estimate time per patient	Prep time Discussion time Post-MDT actions including admin support time
Define MDT structure	Frequency (e.g. weekly) Patients per clinic Appointment length
Calculate cost per MDT session	Time × hourly rate per role
Calculate cost per patient reviewed in MDT	

Where to get the data:

- Trust finance team (staff costs, salary + on-costs, cost per session)
- ESR/workforce systems (staff banding, pay, contracted hours)
- Clinical leads (respiratory, SLT, ENT) for time per patient and clinic structure
- Service/operational managers (clinic templates, staffing models, admin input) Clinic schedules/ PAS/ eRS templates (patients per clinic, clinic length)
- Business Intelligence (BI) team (activity levels, staffing assumptions, utilisation)
- PLICS/ patient-level costing systems (cost per appointment, benchmarking)
- NHS Reference Costs/ National Cost Collection (if local costing unavailable)
- Local service budgets (existing spend on respiratory/ outpatient services)

What this data demonstrates:

- Cost per MDT clinic
- Cost per patient seen

Funding a Cough Pathway

3. Pathway Delivery Costs (Per Patient)

Clinical triage	Who (band/grade), time per referral
Admin support	Booking, data collection, documentation
Diagnostics/ investigations	e.g. spirometry, imaging, trials of treatment
Specialist interventions	e.g. SLT, physio, respiratory review
Follow-up activity	Clinic appointments Care planning Patient communication
Map typical pathway steps and assign cost to each	

Where to get the data:

- PLICS / patient-level costing systems (cost per outpatient appointment, diagnostics)
- Trust finance team (tariffs, average cost per clinic attendance)
- NHS Reference Costs / National Cost Collection (benchmark costs if local unavailable)
- PAS / outpatient data (number of appointments per patient)
- Diagnostic departments (cost of tests: imaging, spirometry, FeNO, bloods)
- Clinical leads (typical patient journey, number of appointments, tests ordered)
- Service managers (pathway structure, clinic utilisation, follow-up patterns)
- BI team (activity per patient, repeat appointments, pathway flow)
- Local audits or sample patient reviews (to map real patient journeys)

What this data demonstrates:

- The scale of the problem locally
- The volume of patients entering the pathway
- Current pressure on clinics and services
- A baseline for workforce and capacity planning

Funding a Cough Pathway

4. Running Costs (Annual Model)

Workforce WTE requirement	Clinical and admin
Service capacity assumptions	Patients per week/ per clinic Total patients per year x cost per patient
Digital systems	MDT platforms, data capture, dashboards
Programme management	Delivery lead/coordination
Governance and reporting	Audit, outcomes tracking
Apply overheads and estates (if applicable)	As per local costing methodology, clinic space/ MDT space

Where to get the data:

- Trust finance team (service budgets, annual cost modelling)
- Workforce/ ESR data (staff costs, WTE, salary, on-costs)
- Service managers (number of clinics, staffing model, admin support)
- PAS/ clinic activity data (patients per clinic, clinic frequency)
- BI team (annual activity volumes, utilisation rates)
- PLICS/ costing systems (cost per appointment, aggregated annually)
- Existing respiratory service budgets (current spend as proxy)

What this data demonstrates:

- The total annual cost of delivering the pathway
- The ongoing resource requirement to sustain the service
- How costs scale with patient volume and demand The affordability of the model over time
- A clear view of recurrent funding required

Funding a Cough Pathway

5. Initial Investment (Set-Up Costs)

Workforce setup	Recruitment or role expansion
Training & capability building	Clinical training (e.g. cough management, SLT approaches)
Pathway design time	Clinical and operational input, IT and admin time
Development of SOPs	Referral criteria Triage model Clinical protocols
Digital setup	Templates, data capture, dashboards
Stakeholder engagement	Primary care/ community/ AHPs/ acute alignment

Where to get the data:

- Clinical and service leads (training needs, pathway setup requirements)
- Workforce teams (training costs, backfill requirements)
- Finance team (estimated one-off costs, business case support)
- Digital / IT teams (system changes, templates, reporting setup)
- Operational managers (admin setup, clinic configuration, pathway design time) Procurement teams (if equipment or external services required)

What this data demonstrates:

- The one-off costs required to establish the pathway
- The level of upfront investment needed to start delivery
- Key areas of investment (training, setup, infrastructure)
- Whether existing resources can be repurposed vs new spend The barrier to entry vs long-term value

Funding a Cough Pathway

6. Cost Drivers

Key cost drivers	SLT access/ capacity Consultant time Diagnostics usage
Demand sensitivity	What happens if referrals increase 20–30%?
Pathway variation impact	High vs low intervention models
Opportunities for cost optimisation	Triage model Group interventions Virtual pathways

Where to get the data:

- Activity and demand data (referral volumes, patient numbers)
- Workforce data (staffing levels, SLT capacity, clinic staffing)
- PAS/ outpatient data (appointments per patient, follow-ups)
- Diagnostic departments (test volumes and costs)
- BI team (variation in activity, utilisation, bottlenecks)
- Clinical leads (what drives complexity, repeat visits, escalation)
- Local audits/ pathway reviews (real-world variation and inefficiencies)

What this data demonstrates:

- The key factors that most influence total cost
- Where costs are most sensitive to change (e.g. demand, SLT capacity)
- Which elements of the pathway drive higher spend
- Opportunities to optimise and control costs
- The levers for improving efficiency and value for money

Cough Pathway: Benefits

Financial

- Reduced repeat GP attendances- better first-time management of chronic cough
- Fewer unnecessary referrals- more appropriate routing across respiratory/ ENT/ gastro
- Reduced duplication of diagnostics- fewer repeat tests across specialties
- Optimised use of specialist clinics- right patient, right clinic, first time
- Potential reduction in urgent care use- fewer exacerbations/ unmanaged symptoms presenting acutely
- Improved productivity- streamlined pathway reduces system inefficiency

Operational

- Clear, standardised pathway- reduces variation in care
- Improved patient flow across services- less "bouncing" between specialties
- Defined clinical ownership of cough- removes ambiguity across services
- Better demand management- more predictable referral volumes
- Improved data capture and visibility- ability to track activity, outcomes and demand

Clinical

- Earlier identification and intervention
- More consistent, evidence- based management
- Improved access to key interventions (e.g. SLT)
- Holistic management of multifactorial cough
- Reduced time to diagnosis/ symptom control

Cough Pathway: Benefits

Patient

- Improved symptom control and quality of life
- Reduced time navigating the system
- Fewer appointments and repeat visits
- More coordinated and personalised care
- Improved patient experience and satisfaction

Health Inequalities Impact

- Improved access to structured care pathways
- Reduced variation in care across populations
- Better identification of underserved groups
- More equitable access to specialist interventions

Strategic and System Value

- Alignment with NHS priorities- prevention, integrated care, reducing variation
- Supports ICS-level working- cross-organisational pathway
- Scalable model for wider respiratory pathways
- Foundation for future service transformation

Appendices

A: Case studies from Vanguard Trusts
B: Primary and Secondary care cough pathways
C: Quantitative metrics for data collection
D: Cough Final Report
E: Example business case from Claire