

Enabling earlier and faster cancer diagnosis across the NHS

C the Signs Pricing Document

Platform Overview

C the Signs is an AI-driven clinical decision support and cancer case-finding platform designed to identify patients at risk of cancer earlier, standardise referral decision-making, and optimise access to diagnostics across the NHS. Built by NHS clinicians and deployed nationally since 2017, it integrates directly with EMIS, SystmOne and Medicus to support end-to-end cancer detection within routine primary care workflows.

Clinical decision support enables GPs to complete personalised cancer risk assessments in under 30 seconds using evidence-based clinical logic aligned to NICE NG12, other national guidelines (e.g. British Menopause Society on postmenopausal bleeding) and local pathways. It supports risk assessment by tumour type, symptom, sign or risk factor, automatically generates compliant urgent suspected cancer (USC) referrals, and ensures 100% standardisation of forms and pre-referral requirements across providers. All activity is coded back, improving accuracy, auditability and record quality. The platform also includes comprehensive automated safety-netting, tracking every patient with suspected cancer, those undergoing tests, and those diagnosed or ruled out—ensuring no patient is lost to follow-up. Dashboards provide real-time visibility of performance, pathway utilisation and cancer outcomes at practice, PCN, ICB and system levels.

Patient assessment capability plays a critical role in alleviating pressure on primary care by streamlining the route patients take into diagnostic services or referral pathways. Patients are able to complete a self-assessment program, and by accurately identifying whether a patient requires straight-to-test diagnostics, urgent referral or non-urgent review, the system ensures that individuals who meet clinical criteria can be routed directly into secondary care without needing a GP appointment and generating a clinical-grade referral (including any critical medical information from their Electronic Medical Record). This combination of direct access, automated triage and self-service options reduces administrative workload for practices, shortens wait times, and ensures that clinical time is prioritised for patients who need it most.

C the Signs' case-finding capability proactively identifies high-risk patients by continuously analysing structured and unstructured primary care data, using NLP to detect subtle indicators of cancer. Automated scans run daily, weekly or monthly, flagging patients for review, triage or investigation. The system also engages patients directly via SMS/email to collect missing clinical information, reducing workload and accelerating pathway eligibility. The platform can be directly calibrated to meet pathway demand to minimise the risk of overwhelming the system.

Together, the decision support, patient assessments and case-finding capabilities provide a comprehensive, data-driven system that accelerates cancer diagnosis, improves equity, and enhances resource efficiency across the NHS.

Clinical decision support

Clinical Decision Support capabilities

Integrated directly into Clinical System (PAS): Real-time access within the patient record, seamlessly supporting everyday clinical workflows.

AI-powered clinical insight: Supports clinicians to identify patients at risk of cancer earlier and more accurately, grounded in NICE guidance and local pathways.

Teledermatology support with image upload and triage: Enable the capture and transfer of high quality images to secondary care.

Automated safety-netting for every patient: Tracks all tests, referrals and appointments on suspected cancer pathways — ensuring no patient is left behind.

Surveillance & Continuous oversight for patients with a confirmed cancer diagnosis: Provides real-time tracking to support timely reviews, follow-up, surveillance & care planning.

Population-wide risk stratification: Highlights patients at higher risk, enabling proactive assessment and earlier detection across communities.

Real-time cancer performance dashboards: Clear visibility of key metrics across practices, PCNs and ICSs, helping teams improve early diagnosis and reduce variation.

Multilingual patient communication: Automated SMS and email reminders to improve engagement and support equitable access to care.

Intelligent triage to the correct pathway: Automatically directs patients to straight-to-test, urgent suspected cancer, routine, or RDC pathways — ensuring the right action at the right time.

SMART referral forms: Guarantees every referral is clinically appropriate, complete, and aligned with local hospital requirements — reducing delay and improving safety.

Comprehensive cancer performance data: Accessible across practices, PCNs, ICSs and Cancer Alliances, enabling continuous quality improvement and earlier diagnosis at scale.

Case Finding

Case Finding capabilities

Core Case-Finding Capability: The platform automatically scans patient records at configurable intervals, analysing coded data and NLP-interpreted free text to detect subtle cancer indicators. Deployment can be phased by practice or patient volume and can target high-risk cohorts, including deprived or minority groups.

Clinical Logic & Transparency: Risk assessment is driven by transparent, auditable algorithms based on NICE NG12, with configurable adaptation for local pathways. All logic is fully documented and mapped by tumour type.

Validation & Clinical Safety: Case-finding criteria undergo retrospective validation using historical datasets, demand modelling and ISO-aligned quality assurance, with stakeholder sign-off and continuous alignment to NG12.

Patient Engagement & Data Completion: Automated SMS/email outreach collects missing clinical information directly from patients (e.g., weight for pancreatic cancer eligibility), reducing GP workload. All responses are coded into the record for full auditability.

Automated Triage & Referrals: Patients are automatically routed to straight-to-test diagnostics, USC referrals, GP/pharmacy-led pathways or advice/guidance. All referrals are electronically populated and delivered, with centralised pathway updates and automated discharge coding.

Real-time Analytics & Monitoring: Dashboards provide real-time visibility of eligibility, engagement, pathway utilisation and outcomes, including demographic and deprivation insights. Search criteria can be optimised dynamically based on performance data.

Demand & Capacity planning: AI-driven case finding maps end-to-end diagnostic and referral pathways, using population-level data to identify where patients are likely to enter, progress, or drop out of cancer pathways. By forecasting demand, referral volumes, and diagnostic utilisation, the system enables services to anticipate impact, plan capacity, and target earlier intervention to improve outcomes and reduce pathway pressure.

Supports an agile, phased approach to programme delivery: enabling deployment at practice level and rapid scaling across PCNs, ICBs, or whole systems. The platform dynamically adapts to available diagnostic and referral capacity, allowing case-finding activity to be flexed in line with system constraints while maximising early detection impact.

Patient Assessments

Patient Assessment capabilities

Comprehensive AI-Driven Risk Assessment: C the Signs delivers real-time cancer risk assessments based on symptoms, signs, tumour types, risk factors, and medical history. These assessments support self-referral and direct access pathways. The system also identifies missing clinical information required to complete the assessment, ensuring that every patient is evaluated thoroughly and consistently.

Patient-Provided Information Capture: To complete assessments efficiently, the assessments enable the capture of missing information, un-reported symptoms. Patients can respond without needing an appointment, and all information is automatically coded into the clinical record. This approach reduces administrative burden while enabling faster confirmation of pathway eligibility.

Automated Triage and Referral Assessment: Once cancer risk is established, C the Signs automatically determines the most appropriate pathway such as straight-to-test diagnostics, urgent suspected cancer referral, or a non-urgent GP or pharmacy-led pathway. Referral forms are pre-populated with the required clinical information and submitted electronically, ensuring consistency, accuracy, and correct use of local pathways across all practices.

Safety-Netting and Follow-Up Assessment: The platform automatically tracks every assessed patient until diagnosis or discharge, generating alerts when expected tests, results, or referrals have not occurred. This ensures that no patient is lost to follow-up and provides a reliable safety-netting system that reduces clinical risk and supports compliance with national standards such as Jess' Rule.

Accessible, Multi-Language Patient Education and Support: Patient assessments are fully accessible, multi-language content. As part of the assessment patients are provided tailored information explaining their next steps, including what to expect from diagnostic tests, treatment pathways, and timelines. Educational materials are available in multiple languages to meet the needs of diverse populations, to empower individuals with consistent, high-quality information, reduce anxiety by ensuring patients understand their care journey from the outset.

Training and Education Support

C the Signs provides continuous training and education to support implementation and sustain high engagement, includes:

- Attendance at PCN and practice meetings, local cancer events, and educational sessions
- Dedicated webinars and QOF/DES-specific training
- Practice-level data workshops to interpret performance metrics and identify areas for improvement.

Technical Support and Maintenance

Helpdesk available 9am–5pm, Monday to Friday (excluding Bank Holidays):

- Remote deployment and maintenance across all practices
- Security and compliance managed in line with NHS Digital and IG requirements
- Continuous updates to align with evolving NICE guidelines and national policies.

Supporting Local Cancer Teams and Pathways

C the Signs collaborates with local cancer teams to:

- Attend alliance and ICB cancer meetings
 - Provide routine data reports aligned with local KPIs
 - Support pathway redesign and the adoption of new diagnostic services
- Facilitate local implementation of RDCs and rapid diagnostic models.

Deployment and Governance

Each deployment follows a robust implementation plan, including:

- Information Governance approvals (DPIA & DPA)
- Local configuration of pathways and resources
- Comprehensive communication and engagement plan
- Webinars and live training prior to go-live
- Steering Group oversight with agreed KPIs and data monitoring

Licensing Model

C the Signs is commissioned as an annual licensing model, based on the registered patient population within a defined area. All prices below exclude VAT:

Clinical Decision Support

Length of Licence	Per Patient Cost (£)
1 year	0.26p
2 Year	0.22p
3 Year	0.20p

The licence covers all configuration, deployment, and ongoing support, including:

- Configuration of regional cancer pathways and access to services
- Onboarding of all GP practices
- Training and education support for all practices and PCNs throughout the licence period
- Technical support and system maintenance, with a dedicated helpdesk

Case Finding

A Case Finding pathway is included at no additional cost for contracts longer than 1 year. Though can be purchased in addition to 1 year contract or add additional pathways for the below fee:

Length of Licence	Per Patient Cost (£)
1 year	0.10p

Patient Assessment

A Patient assessments pathway is included at no additional cost to case finding but can be purchased separately without case finding for the below fee:

Complexity of Pathway*	Per Patient Cost (£)
Simple	0.05p
Medium	0.06p
Complex	0.07p

* Complexity is determined by the number of diagnostic pathways, criteria, and tracking requirements in each area.

Case find communication cost

For the Case Finding product, patient communication costs are charged separately, with customers able to choose between using the C the Signs SMS service or NHS Notify, depending on local preference and commissioning arrangements:

Communication Method	Per Patient message (£)
SMS	£0.05p
Email	£0.00
Letter	£2.00

Impact

- 99% sensitivity for identifying patients subsequently diagnosed with cancer
- 36.8% increase in early-stage (I–II) detection in whole-ICB evaluation
- Reduction in time to diagnosis, significantly improving FDS performance
- >50% reduction in cancers diagnosed via emergency presentation
- >12% increase in cancer detection rates in primary care across multiple sites
- 808% return on investment through reduced USC referrals and downstream healthcare utilisation
- 20% of patients redirected away from USC pathways while maintaining or improving cancer conversion rates
- Reduction in number of GP appointments patients require prior to a USC referral

Real World Evidence

Evaluating the impact of C the Signs: AI-driven early cancer detection in primary care across Somerset ICB, Annals of Oncology, ESMO 2025 (Abstract 1748P):

[https://www.annalsofoncology.org/article/S0923-7534\(25\)03297-1/fulltext](https://www.annalsofoncology.org/article/S0923-7534(25)03297-1/fulltext)

Key findings:

- Stage I–II diagnoses via USC referral increased from 58.5 percent to 80.1 percent
- Improvements across pancreatic, ovarian, lung, colorectal, breast and endometrial cancers
- 95 percent utilisation; ~30,000 risk assessments
- Improvement observed: 36.8 percent relative increase in stage I–II diagnosis

Using an artificial intelligence platform to enhance cancer detection rates in primary care,

Journal of Clinical Oncology, 2024 (Abstract 1560):

https://ascopubs.org/doi/10.1200/JCO.2024.42.16_suppl.1560

Key findings:

- Cancer Detection Rate in adopting practices improved 58.7 percent → 66.0 percent
- Non-adopting practices: 58.4 percent → 58.4 percent
- No significant increase in referral volumes
- Improvement observed: 12.3 percent absolute increase in Cancer Detection Rate

Health economic assessment on an AI cancer prediction platform in the UK National Health Service, JCO Oncology Practice, 2025 (Abstract 32):

https://ascopubs.org/doi/10.1200/OP.2025.21.10_suppl.32

Key findings:

- 808% ROI
- 12,374 avoided USC referrals;
- 4,125 clinician hours saved
- 272 earlier diagnoses
- £1 spent £8 saved
- £1.5m in annual savings
- Improvement observed: Significant health economic impact in 12 month period

Accuracy of an AI prediction platform in predicting tumour origin: a real-world study, JCO

Oncology Practice, 2023: https://ascopubs.org/doi/10.1200/OP.2023.19.11_suppl.74

Key findings:

- Sensitivity for identifying patients later diagnosed with cancer: 99 percent
- Tumour origin correctly predicted in 93.2 percent of cancer cases
- Improvement observed: High sensitivity and high tumour accuracy in real-world primary care

Enhancing early stage cancer detection in primary care: evaluating the impact of C the Signs in Manchester, Cancer in Primary Care Research International (Ca-PRI) Conference 2025:

https://www.mcrcl.manchester.ac.uk/wp-content/uploads/2025/04/3882_MCRC_Ca-PRI-2025_conference_abstract_booklet-3.pdf

Key findings:

- Cancer Detection Rate improved 55.7 percent → 62.9 percent
- 12.9 percent relative improvement vs minimal regional change
- Stage I-II diagnoses: 60.2 percent vs 56.5 percent GM-ICB
- Improvement observed: 12.9 percent relative increase in Cancer Detection Rate

Enhancing early detection of ovarian cancer: a retrospective analysis using the C the Signs clinical decision support system, Journal of Cancer Policy, 2024:

<https://doi.org/10.1016/j.jcipo.2024.100552>

Key findings:

- Early-stage ovarian cancer diagnoses increased 21.7 percent → 33.3 percent
- Improvement observed: 53.3 percent relative increase in early-stage ovarian cancer diagnoses

Implementing an AI triage platform for identification and management of patients suspected of cancer risk to improve elective recovery post pandemic, Cancer Research, 2025 (Abstract 2518):

<https://doi.org/10.1158/1538-7445.AM2025-2518>

Key findings:

- 21.7 percent of patients routed to non-USC pathways
- USC conversion rate 7.3 percent (20% higher than NHS England performance of 6.0% conversion rate)
- Improvement observed: Reduction in USC pressure, improving downstream pathway efficiency

C the Signs evaluation year 3 – York Health Economics Consortium (YHEC), Independent evaluation (2021–2024):

https://transform.england.nhs.uk/media/documents/York_Health_Evaluation.pdf

Key findings:

- Emergency presentations 21 percent → 6 percent
- Fewer GP consultations prior to referral for a proportion of patients
- Higher proportion of cancers diagnosed via GP referral
- Improvement observed: >50 percent reduction in emergency route diagnoses

Implementation of an AI-driven self-assessment pathway for the early detection of endometrial cancer in primary care, Annals of Oncology, ESMO 2025 (Abstract 1129P):

<https://doi.org/10.1016/j.annonc.2025.08.1765>

Key findings:

- Over 600 patients risk assessed through the platform
- 77% met criteria for further investigation
- Time to specialist review reduced 60 days → 5 days (91% improvement)
- Time to diagnosis reduced 48 days → 22 days
- 19 endometrial cancers diagnosed; all treated within the 62-day standard
- Faster Diagnosis Standard performance increased 29–45% → 84%
- Improvement observed: Significant improvement in FDS and patient engagement

Alignment with the NHS 10-Year Health Plan: *Fit for the Future*

C the Signs directly aligns with the NHS 10-Year Health Plan for England (2025 – 2035), supporting its three transformative shifts — from sickness to prevention, from hospital to community, and from analogue to digital. The platform is designed to operationalise these priorities, enabling systems and clinicians to deliver earlier diagnosis, proactive prevention, and equitable access to care across pathways.

C the Signs helps deliver the Plan's vision of an NHS that predicts, prevents, and personalises care. Its AI-driven clinical decision support empowers GPs and care teams to identify patients at risk of cancer and other serious conditions at the earliest possible stage. By analysing multiple risk factors and symptoms against national guidance and local service availability, C the Signs ensures every patient is directed to the right test, at the right time, and in the right setting to maximising the effectiveness of redesigned pathways.

The platform offers a scalable, data-driven solution to realise the Plan's ambition for integrated, sustainable care. C the Signs connects primary, secondary, and community providers into a single digital ecosystem, reducing duplication and variation across pathways. It supports the shift away from hospital-centric models by embedding diagnostic and referral decision-making in the community, helping to reduce avoidable referrals, improve triage accuracy, and shorten waiting times.

By surfacing real-time analytics on referral patterns, diagnostic outcomes, and inequalities in access, C the Signs gives ICS leaders actionable insights to plan and commission services that address unmet need. These insights enable targeted interventions and informed resource allocation, directly supporting the NHS's goals of reducing health inequalities and improving population health outcomes.

The platform's interoperability with existing NHS systems ensures seamless implementation within current infrastructure, while its evidence-based algorithms are continually updated in line with NICE and NHS England guidance. This ensures alignment not only with national strategy but also with local delivery priorities, supporting commissioners to meet Long Term Plan and Core 20PLUS5 objectives.

C the Signs acts as a unifying digital tool that links prevention, early diagnosis, and personalised care. It enhances multi-disciplinary collaboration by providing shared visibility of patient journeys, ensuring continuity across redesigned pathways. The result is a more proactive and efficient system, one that delivers better patient outcomes, greater productivity, and improved value for money.