

# ONE Testing

## A Digital Phlebotomy Solution

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**Salutare:**

## Salutare ONE Testing

Combines test requests from GPs and hospitals  
into one place. Access anywhere at anytime.  
Give patients choice

One digital label.  
One tube.  
Once.

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# FOI Results Hampshire

5.4 million tubes are re-labelled every year

100,000 tubes per week

50 staff just to re-label tubes



**Hampshire Hospitals**

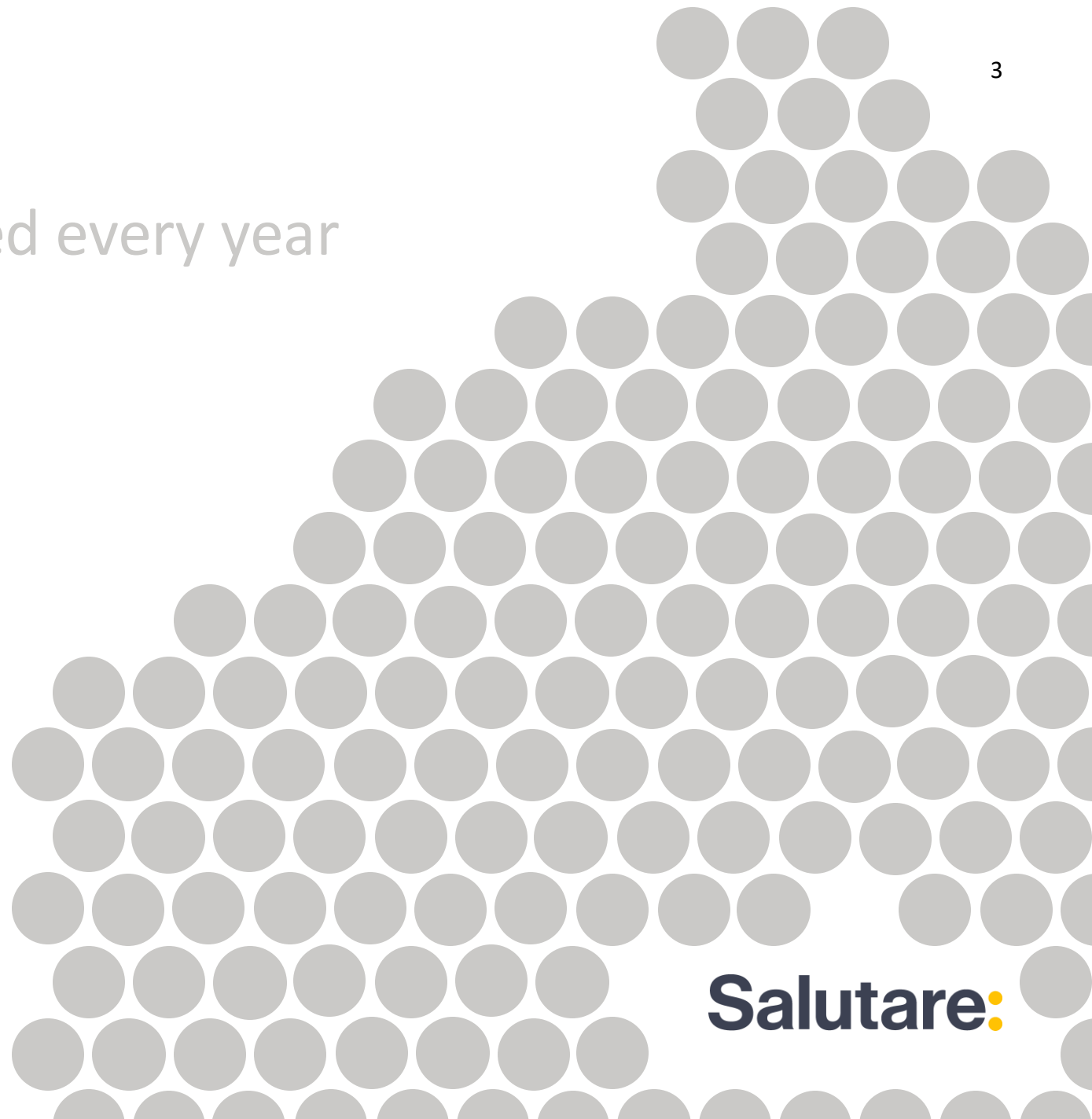
NHS Foundation Trust

Freedom of Information Office  
Basingstoke and North Hampshire Hospital

University Hospital Southampton 

NHS Foundation Trust

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# Paper Forms and Relabelling create problems

## A blood test is more painful than you think

### For Patients

Little choice, poor experience

Minimal choice of where and when to attend

No form, no test

Delayed results and tests repeated with paper-based systems

### For Phlebotomy

Wasted money, wasted opportunity

Manual labelling of tubes takes time, creates errors

80% of tubes from GP requests require re-labelling. Huge costs

Manual systems mean no data to assess and improve performance

Up to 5% of all blood tests are unwarranted duplicates, i.e. same test, same arm, same time.

### For the NHS

A strategic obstacle

Integrated Care Systems require system-wide technologies, but few can connect primary, secondary and community care

Community Diagnostic Centres and other shared services remain paper-dependent because there is no shared EPR

### For the Environment

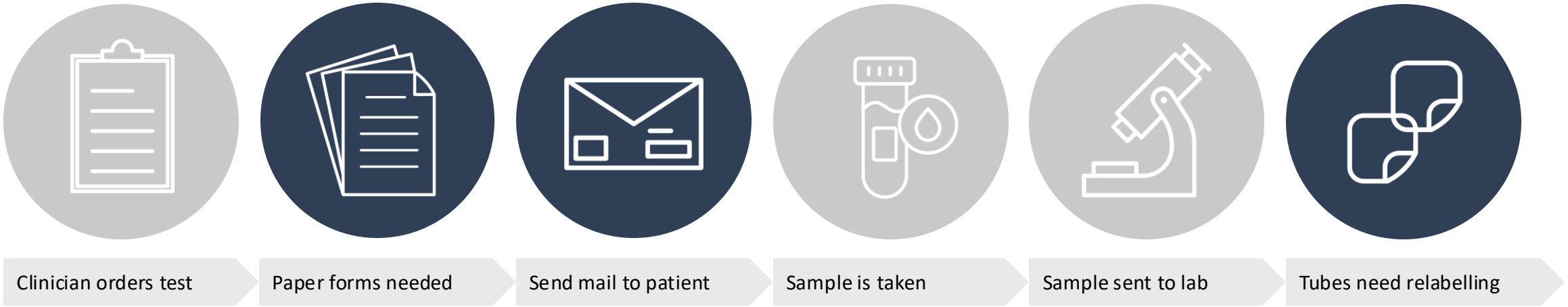
The carbon footprint

Inefficient paper-dependent workflows

Avoidable patient journeys and postal transit

Wasted consumables

# Most phlebotomy services waste time and money And patients lack choice



No forms, no test

- Minimal choice of where and when to attend
- No form, no test means patients are turned away
- Delayed results, incorrect collection times and tests are repeated with paper-based systems
- Labs must hire many staff to manually manage issues

## Paperless digitised phlebotomy

A green solution that saves money and reduces errors



Take paper out of the process

Let patients choose when and where to do their tests

Find patients' tests and print analyser-ready labels at any location

Scan tubes for accurate collection times and automatically update EPR

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# Paperless digitised phlebotomy

## A green solution that saves money and reduces errors

Patients choose which phlebotomy location to attend; no forms needed  
Every location can print any tube labels for any order – ready for analysers



Patient chooses location and books appointment



Staff find all orders across Hospitals and GPs

# Paperless digitised phlebotomy

## A green solution that saves money and reduces errors

Remove 90% of paper to reduce costs and carbon emissions and improve service performance



Digital Blood Forms



Analyser-ready Labels



# Accurate sample collection times Easily scan tubes in a second

Staff scan tubes for accurate collection times. Save hours a day from extra manual work and automatically update EPR and LIMS systems



At a glance see all tubes scanned and any missing tubes



Staff scan labels in a second to capture collection times

# Manage performance, demand, and costs better Automate collection times, create standard reporting and analytics

Gain better insight through operational metrics on phlebotomy and lab reception

- 1. Daily counts
- 2. Performance
- 3. Team and staff
- 4. Efficiency and costs



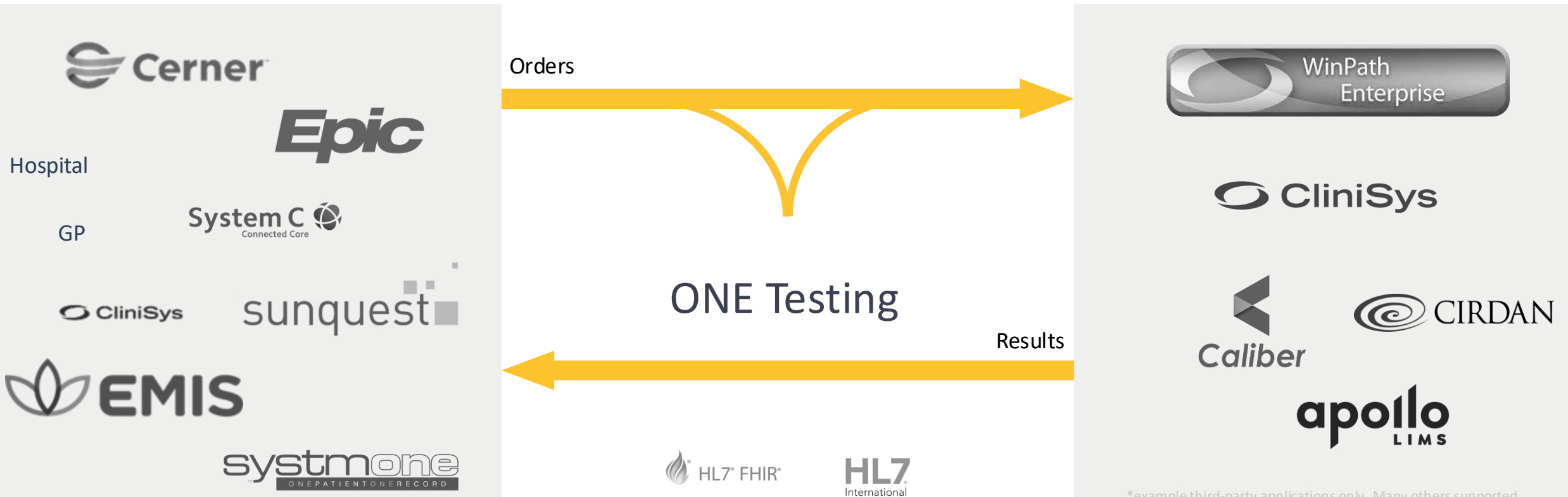
\*example analytics dashboard

We work with whatever you use  
EPR, LIMS, ordercomms and results systems in place

Communicates with multiple EPRs and LIMS  
Prints analyser-ready barcode labels anywhere, anytime

Ordercomms

LIMS



\*example third-party applications only. Many others supported.

# Salutare ONE Testing Digital Phlebotomy and Digital Blood Forms



# Salutare ONE Testing Digital Phlebotomy and Digital Blood Forms

User Interface, digital labels and forms

Clearinghouse. Print Scan Teams Reports Blood Forms Welcome Mr. Moore

**Patient Search**

Select the patient

First Name	Last Name	Date of birth	Gender	MRN Number	NHS Number
Benny	Omar	1992-03-04	M	123456	123 456 7890
Ben	Longhurst	1970-04-27	M	147010	244 175 890

**Future orders**

Date	Order	Accession	Path Lab	Order Origin	Tube Colour	Clinician	Track
14:04 31/01/2022	Fbc, WBC	87654321(UHC008005758)	HAE	Top Practice		DR/TWIRL	>>>
14:04 31/01/2022	IRO1	87654321(UHC008005758)	BIO	Top Practice		DR/TWIRL	>>>
14:04 31/01/2022	IRO1	87654321(UHC008005758)	BIO	Top Practice		DR/TWIRL	>>>
14:04 31/01/2022	IRO1	87654321(UHC008005758)	BIO	Top Practice		DR/TWIRL	>>>

Printer: \RFL-ZBR-11-A PRINT SEND

NHS No: 1442854359

MRN: 20149706  
Forename: BEN  
Surname: LONGHURST  
DOB: 17/08/1996  
Address: 41 Ackington Drive, London, NW9 5WL

Request Date: 23/09/2020  
Clinician Name: DR SHIVANI  
Clinician Alias: GP000306  
Practice Code: E83016  
Practice Address: Watling Medical Centre

Department: BIO

Clinical Details: N/A

Test: Liver Profile (M3)

Specimen Container: Gold

Specimen Collection:  
DATE: / /  
TIME: : :  
Phlebotomist Signature:

Lab Only Use:  
Sample Receiver Initial: \_\_\_\_\_  
Sample Type Received:  
SST EDTA Grey Red Light Blue

Go completely paperless with pre-labelled tubes  
Save money, easily expand operations,  
remove labelling errors and delays

Benefits

Simplify sample collection  
infrastructure materials and related  
costs

Take all paper out to reduce costs  
and improve sustainability, lower  
carbon impact

Stop all paper relabelling errors



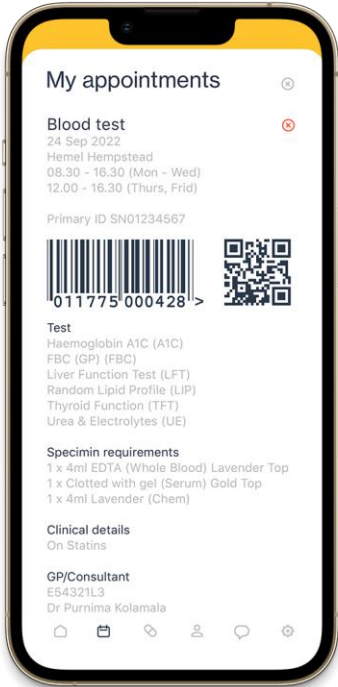
How it works

Electronic test orders pass to  
Clearinghouse

Phlebotomists find orders and select  
to collect at any location

Clearinghouse scans tubes and  
assigns to test order with accession  
from tube

Option to print paper labels if  
required for some orders – new  
accessions created and assigned



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# Patient choice and service simplicity

## Democratise phlebotomy

Any blood tests can be **taken at any location**  
[hospital, GP surgery, CDC, pharmacy, others]

### ONE Testing



All test requests are collected and are available



Patient books appointment when and where it's best for them



Patient turns up and doesn't need forms

# Certifications

## Our current partners

Important certifications confirm quality and adherence



NHS

NHS Digital certifications on DSP Toolkit, SPINE access for patient records



Care Quality Commission

Passed certification and approval for private blood testing service with public offers: thePharmacyClinic



Cyber Essentials Certified

Core digital safety and privacy management in place



Crown Commercial Service

Accepted and approved both major products for purchase by UK public organizations

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# Values and benefits

## ONE Testing Digital Phlebotomy benefits

Works across ICB and Trusts.  
Perfect for CDC locations.

Easily manage all blood and non-blood tests from multiple EPR and GP systems without paper forms and handwritten labels

Simplify self-booking of appointments and check-in by sending patients Digital Blood Forms with links and barcodes

End re-labelling. Prints analyser-ready barcodes

Capture accurate sample collection times by scanning tubes and automatic, real-time status updates to LIMS and EPR

Reduce staff time and effort with a simple, clear UI for less confusion and short training times

# Benefits and Financial Savings

## Hospital, Patients and Environment

1. Time saved by phlebotomists – no manual labelling of tubes.
2. Patients do not get turned away if they do not have a paper form
3. Digital blood forms are paperless and environmentally friendly.
4. Works in CDCs and creates potential for Pharmacy Phlebotomy.
5. Patients have choice, and can travel less far for blood tests.
6. Works for non-bloods also e.g. urine

## Pathology and Hospital

1. No re-labelling of tubes.
2. Re-labelling staff re-deployed in labs.
3. Tubes arrive date and time stamped by scanning and analyzer-ready.
4. Full track and trace from request to arrival in lab.
5. High quality labels at outset means less sample rejected by analyser.
6. Stop duplicate blood tests e.g. two identical tests same time. Can save 5% of pathology budget (£2M/year)

# Impact on operations

## Costs, time, and workflow improvements

### Sample processing

Manually written tubes, unreadable or unusable labels, and labels from secondary GP or other processes

Assume 10k labels a day need relabelling; about 3k patients to look up and process, print labels

ONE Testing reduces 80% or more, down to 2k reprocessed

At 2 min/patient, 6000 min saved per day, or 20 full time members of staff

### Phlebotomist time

Time to look up patients in EPR and register collection in EPR or third-party system

Each staff touch 30 patients/day; three minutes per patient saved

Gain 1.5 hour a day per phlebotomist.

That means more booking appointments.

That means accurate to the minute and easy to obtain collection times with ONE Testing

### Sample re-running

Around 12% of tubes do not go through and must be reprocessed after first pass in analyzer

10% stopped, relabelled, and re-run

We reduce it down to 2% to re-run, 10% of tubes saved from process

Another 600 minutes on 12,000 tubes a day – a full day and a half of someone's time [10 hours]

### Error costs

If your specimen reception or phlebotomist staff have to relabel 10k tubes a day, how often do they make errors?

1% error is 100 tubes or 30 patients a day

The cost of errors in repeat tests, lost phlebotomy appointment slots due to rebooking, and patient harm?

# Impact on people

## Staff, patient, and manager improvements

### Patient choice

Patients decide where and when they want to attend phlebotomy

One portal for orders and printing service means patients can go to hospital, GP, community center, CDC, or pharmacy that they want

Patients get a digital blood form by email or SMS

#### BENEFITS

Patient choice  
Convenience  
Clarity and simplicity

### Phlebotomist workflow

Phlebotomists are tight on time with turnover of patients every 6-8 minutes

Reduce their churn through systems – ONE Testing a single system to find and print orders, scan for collected time

Save phlebotomists' time by removing manual labelling tubes and receipting in EPR

#### BENEFITS

Single app for phlebotomy  
Collected time easy to do  
Link to booking system  
Focus is more on the patient

### Clinician time

Clinicians have to manage patients' expectations and instruct on blood tests

Simple to understand digital blood forms automates how patients book appointments and view test orders

Save clinicians' time with forms automation that don't require explanation to patients.

#### BENEFITS

Free up clinician time  
Clear instructions  
Durable links and directions

### Service and costs management

Hard to measure and manage performance and demand

ONE Testing captures: who is ordering the most tests? Where do patients go? How long does it take sample to get to lab? How long do patients wait to attend?

Standard data metrics for managers

#### BENEFITS

Better data on demand mgmt.  
Service analysis  
Workflow optimization

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## Impact on the environment

Paperless workflow, fewer consumables, and less transport time

Fully digital phlebotomy reduces carbon impact

Fully digital phlebotomy means no more patients forms to be printed, lost, or thrown away.

Patients no longer need to rebook and return to phlebotomy centres when forms are missing

Patients go where it is convenient for them – nearby, less transit time, lower risk, less carbon consumed

### EXAMPLE IMPACT

90% of forms no longer printed, paper not consumed or wasted

10% of patients no longer need to rebook and return because missing a form or order or sample error

5-15% fewer materials consumed due to fewer rebookings and duplicated tests

## Impact on waste Sample order duplication

Many orders made are duplicated at the time of phlebotomy

5% of all pathology requests are duplicates – same test, same day, same time, same patient - this is NEVER justified

We're not referring to repeat blood tests that clinicians order for regular monitoring.

Further savings possible when we activate de-duplication across multiple clinicians, hospital and GP orders

### EXAMPLE IMPACT

5% of a pathology budget

Major Trust: £50M per year

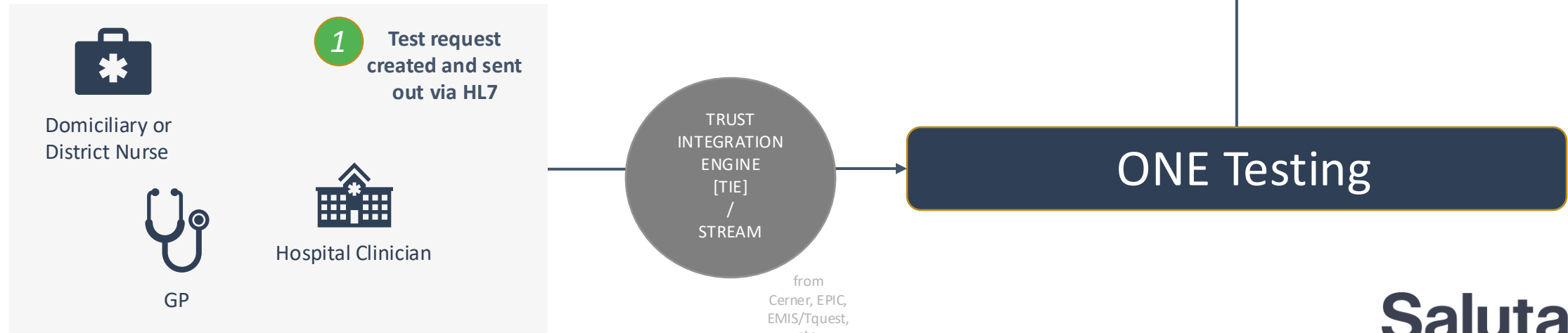
Means saving up to £2.5M per year

# Digital Blood Forms go to patients Salutare® ONE Testing

Test requests are created the normal way in an EPR [EPIC, Cerner, EMIS, System3, Vision, etc]

Salutare takes the order from a direct stream, TIE or LIMS. It sends a Digital Blood Form [PDF + QR code] along with a link to the Patient to book an appointment directly in your appointment booking system.

Patients go wherever they want for blood taking





# Patient presents at ANY phlebotomy location Salutare® ONE Testing

The Patient presents at phlebotomy, with or without the QR code and Form. Reception finds the Patient and Orders in Salutare.

Proper analyser-ready labels are printed for the tubes.

Blood is collected, tubes are labeled, tubes are scanned for departure to lab.

Single labels work all the way through the analysers with no relabelling



4



Patient arrives at ANY phlebotomy centre  
Check in with appointment booking system

shows QR confirmation  
-OR-

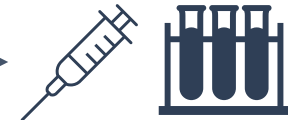
Phlebotomy can look up with Name/DOB/MRN

5



Print lab-ready tube labels  
and A4 form [if desired]

6



Tubes collected, scanned  
along pathway, and sent to  
lab, confirmed in pre-analyser

ONE Testing

Salutare:

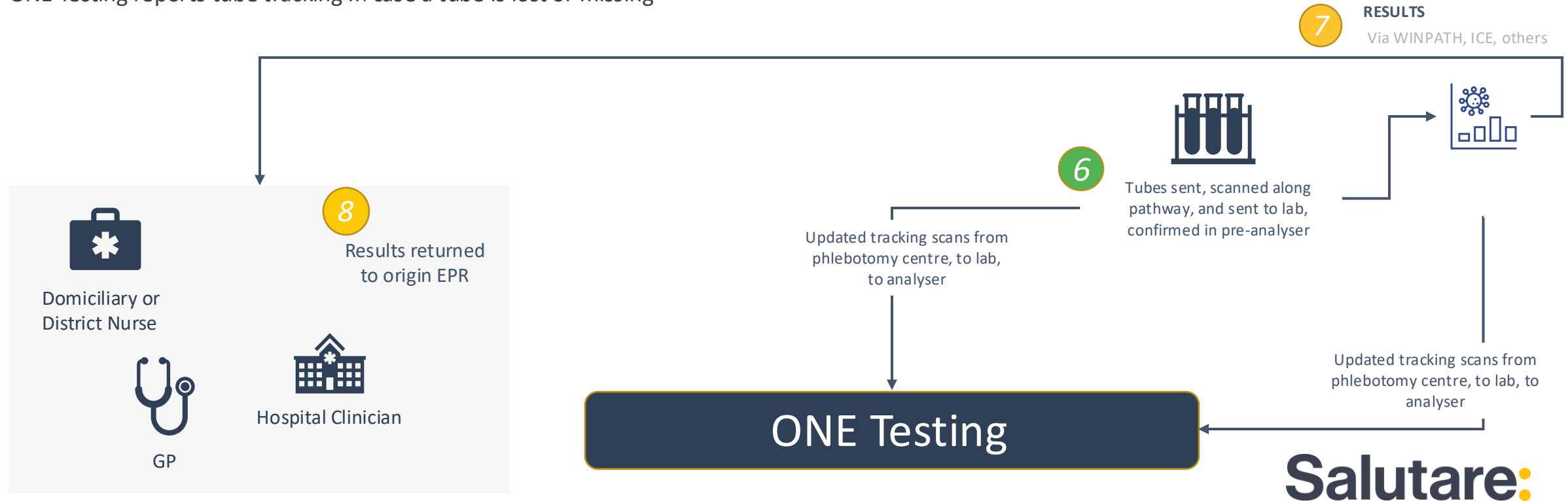
# Tubes sent to lab, tracked, results returned Salutare® ONE Testing

Blood tubes are scanned, Salutare stores scanned locations for tracking and sends a COLLECTED notification automatically.

Tubes sent to lab and analysed, analyser updates on reception

LIMS sends results back to origin EPR for reporting

ONE Testing reports tube tracking in case a tube is lost or missing



# - Coventry & Warwickshire Adult Blood Tests

Ordered by next available appointment

[← Back to clinic type](#)



## Vantage pharmacy

[Visit Website](#)

[Vantage chemist 131-132 Far Gosford street, ...](#)

Next available time:

**13:50**

**16-10-2023**

[Book an appointment](#)



## Warwick Hospital Bloods

[Visit Website](#)

[Lakin Rd, Warwick CV34 5BW, UK](#)

Next available time:

**14:15**

**16-10-2023**

[Book an appointment](#)



## Styvechale Pharmacy

[Visit Website](#)

[Styvechale Pharmacy, 84 Baginton Rd, CV3 6...](#)

Next available time:

**07:30**

**17-10-2023**

[Book an appointment](#)



## Stratford Hospital Bloods

[Visit Website](#)

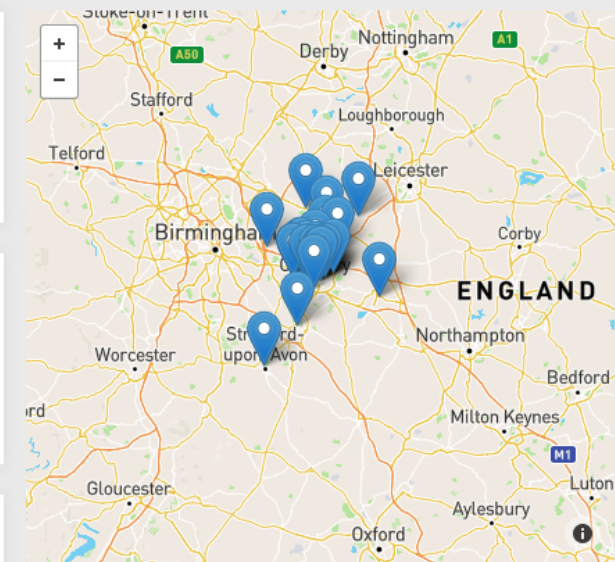
[Arden Street, Stratford-upon-Avon, Warwick...](#)

Next available time:

**08:05**

**17-10-2023**

[Book an appointment](#)



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