



Cardiology Sub-group

Design Workshop Report

Scottish Access Collaborative Approach

The aim of the Scottish Access Collaborative is to sustainably improve waiting times for patients waiting for non-emergency procedures.

The Cabinet Secretary for Health and Sport launched the Scottish Access Collaborative in November of 2017. This will be closely aligned with the Regional Planning, Realistic Medicine, Elective Centres Programme and extant Performance Management and Clinical Priorities, Delivery Activities and Programmes. In the complex landscape of healthcare planning and delivery the Access Collaborative will focus on developing collaborations which build on existing work streams and networks to sustainably balance demand and capacity. The Collaborative is led by Professor Derek Bell, Chair of the Academy of Medical Royal Colleges, and Paul Hawkins,

Chief Executive of NHS Fife and is made up of a range of professional bodies including the Scottish Academy of Medical Royal Colleges, patient representatives and service leaders. The Collaborative has developed six fundamental principles which will shape and prioritise the way services are provided in the future. These principles are described in this report in the context of the findings.

A key strand of the Collaborative's work is the delivery of the Specialty Sub-Group programme, in which a range of experts in clinical specialties undertake a cycle of design-led workshops with the support of the Digital Health and Care Institute.

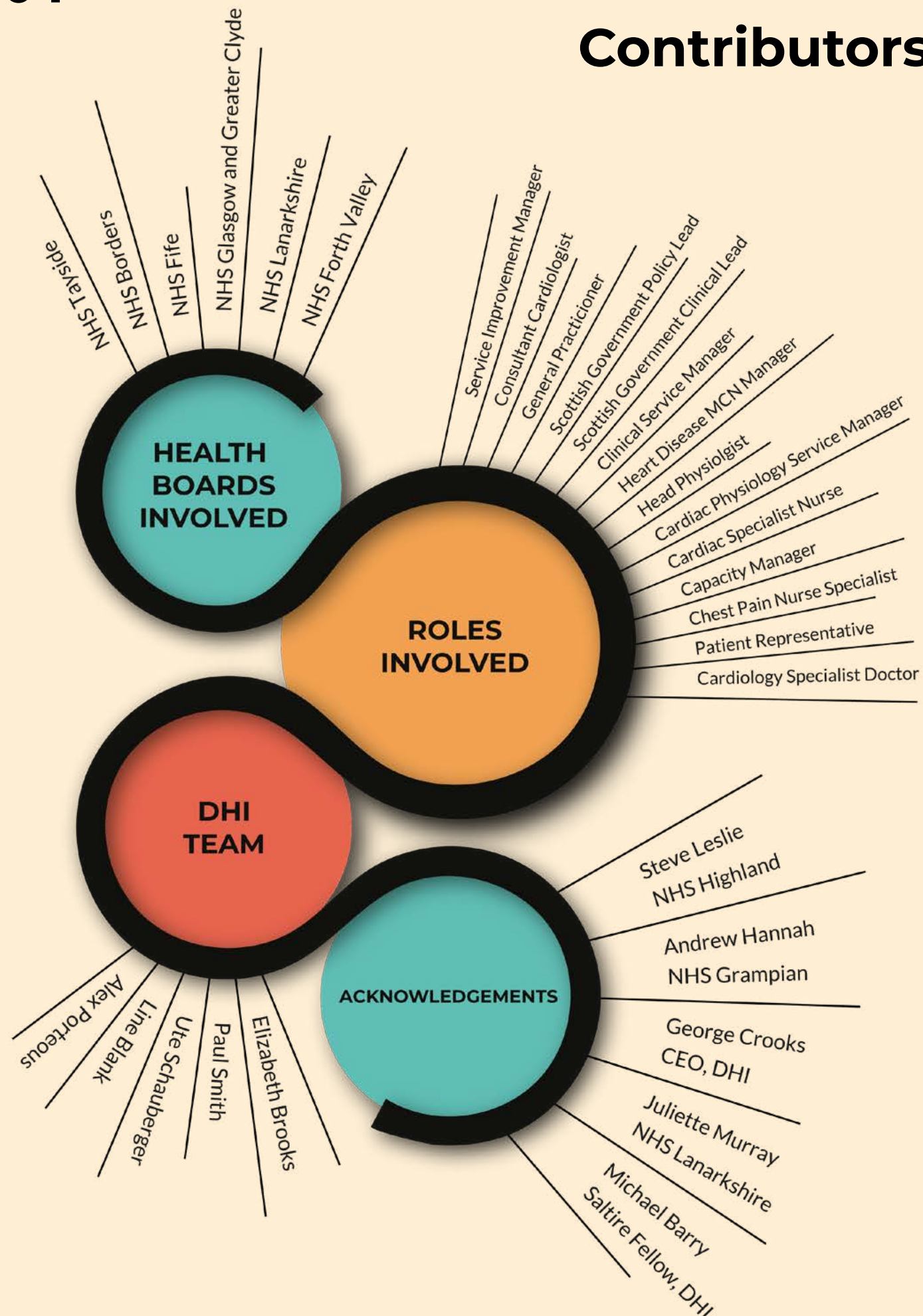
The Digital Health and Care Institute (DHI) was commissioned to design workshops aimed at producing high level mapping of each clinical area and identifying clinically led and patient centred sustainable improvements. The findings from these workshops will form the basis of a speciality-led Access Collaborative programme delivering solutions to help scheduled care services to sustainably meet the challenges of the future.

The DHI was established as a collaboration between the University of Strathclyde and the Glasgow School of Art and is part of the Scottish Funding Council's Innovation Centre Programme. It is part funded by Scottish Government. DHI support innovation between academia, the public and third sectors and businesses in the area of health and care.

For more information on the workshops please see the Collaborative's blog:

<http://bit.ly/accesscollaborative>

Contributors



Executive Summary

The Cardiology Speciality Sub-Group came from 14 different specialists areas and 6 different NHS Board areas. Additional input was noted from the two northern NHS Board areas, giving the Sub-Group both a broad geographic and functional reach. The first step for the workshops was to identify common Cardiology patient symptoms, noting their importance. Pathways were mapped for each symptom and focus areas agreed. Further discussion around these focus areas led to suggestions for sustainable improvement. These ranged from virtual consultations and push notifications of test results to diagnostic clusters, specialist nurse-led pathways and patient led follow-up.

Across all symptoms dedicated time for vetting was seen as key to ensuring patients were offered appropriate pathways, reducing unnecessary referral into secondary care. There was agreement that the addition of guidance on referral criteria would reduce inappropriate referrals. The opportunity for a joint Cardiology and Respiratory pathway was noted, potentially reducing the time taken to find the correct pathway for patients with breathlessness. Supported patient led follow-up was identified as an improvement preventing patients returning unnecessarily for routine follow-up.

Work to further scope these improvements will be undertaken in the coming months allowing a prioritisation process to take place through the Scottish Access Collaborative (SAC). Future work will involve national support to ensure the Cardiology community, along with primary care partners are supported to make the necessary changes to ensure efficient and effective patient pathways are achieved. It is envisaged that the work areas will be taken forward either through the Cardiology community itself or for broader issues which are not specialty specific, be achieved through the SAC Combined Action Group (CAG).

July 2018



1. Preparation

2. Map the Landscape

3. Ask the Right Questions

4. Sketch Solutions

5. Prioritise

Clinical Foreword

Every cardiologist, nurse practitioner, cardiac physiologist and GP has their own ideas on how to make their Cardiology service work better for patients. These may be about small changes to the way a service is delivered locally or big ideas about the national referral process in their sub-specialty. They may already have adopted these changes locally or may have felt that it is too difficult and it remains simply as an idea. The Scottish Access Collaborative has allowed these clinical staff to share these ideas and the collective thinking of the clinical groups has demonstrated enthusiasm for service improvement, consensus on current issues facing the service and has generated many ideas on how we could improve processes. The Scottish Access Collaborative also provides a platform to develop and act on the good ideas and this could potentially produce huge improvements in Cardiology services for patients in Scotland.

Implementation Support

The aim of the Modern Outpatient Programme is to support the development of a Modern Outpatient service which, aligned with the principles of the SAC, will support effective and faster service change to ensure patients are able to access healthcare in a timely manner. This national Programme is well placed to action the outputs from the Cardiology workshops; supporting clinical teams to test innovative ways of working and how positive improvements proven to enable the provision of high quality care for patients, can be shared and implemented at scale across Scotland.

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Scottish Access Collaborative Principles

I.

Patients should not be asked to travel unless there is a clear clinical benefit, and that any changes should not increase the workload for primary, secondary or social care in an unplanned/unresourced way

II.

All referrals should either be vetted by a consultant/senior decision maker or processed via a system wide agreed pathway – value vetting

III.

Referral pathways (including self-management) should be clear and published for all to see

IV.

Each hospital and referral system should have a joint and clear understanding of demand and capacity

V.

Each local system should have a clear understanding of access to diagnostics as part of pathway management

VI.

Improved and published metrics including how we record and measure virtual/ telehealth/ tech-enabled care

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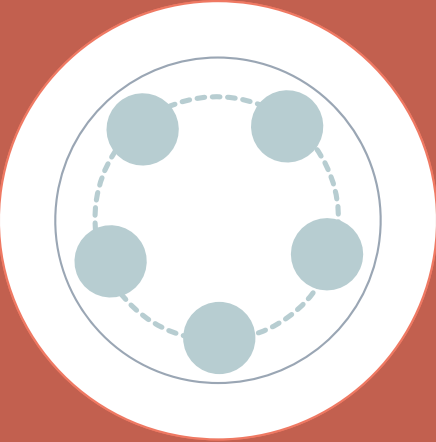
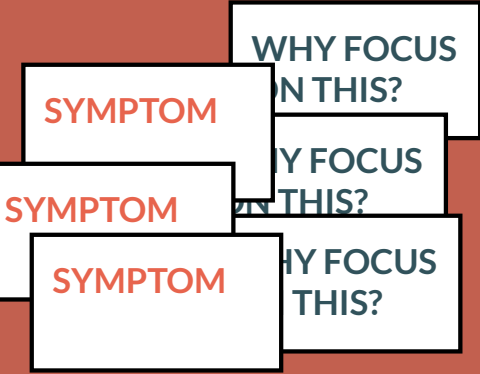
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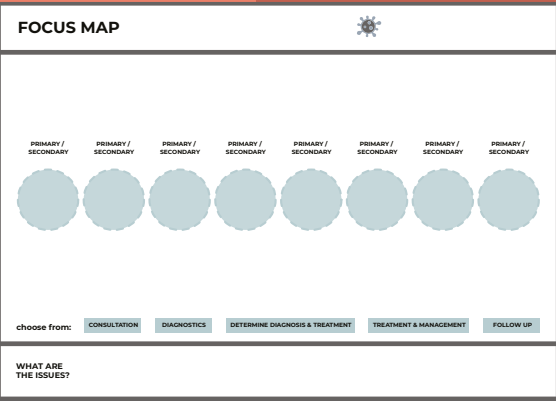
Next Steps

Design Approach



WORKSHOP 1

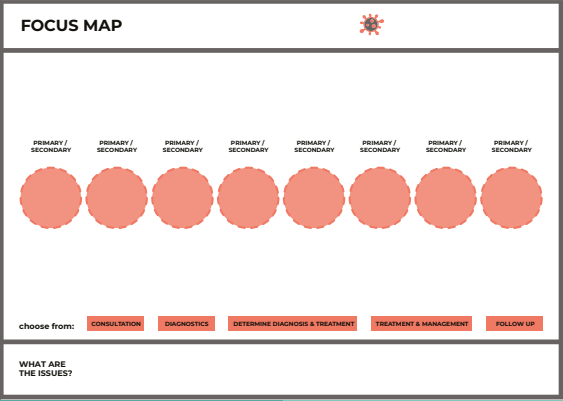
We look at which symptoms a clinical area works with most, and prioritise which to take forward and why. We map the current landscape and pathways for each priority symptom.



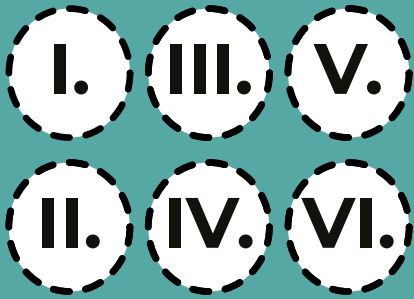
The DHI team uses the discussions and maps to distill the key challenges the group identified on each pathway. Each challenge is communicated on a focus map.

WORKSHOP 2

We explore the key challenges by taking into account patient feedback, and using the diverse range of expertise and experience in the group. We start identifying opportunities and map out ideas.



From these discussions, the DHI team distills the key ideas and insights into a set of proposed changes.



WORKSHOP 3

We add detail to the proposed changes. We also cross-check and prioritise the proposed changes against the Scottish Access Collaborative Principles.

Symptom Profiles

The cycle of design-led workshops started with the participants agreeing on a small number of cardiac symptoms they felt were of top priority and could deliver maximum impact through service improvements. These symptoms were then mapped as they moved through current Cardiology services from initial consultation to eventual discharge. What follows are the four symptom profiles defined for this study. Each profile has been defined by its volume of presentation, a common definition, and crucially a rationale for why this is a symptom of interest and something to focus on.



This word cloud was compiled after the workshops and reflects the 30 most commonly used words in the shorter free text field in SCI Gateway. The data is taken from 5440 Cardiology referrals from Fife. While the word cloud was not used in the workshop, it does support the broad choice of symptoms although it should be noted that fainting did not make the top 30.

Palpitations

Palpitations are heartbeats that suddenly become more noticeable. The heart might feel like it is pounding, fluttering or beating irregularly, often for just a few seconds or minutes. These sensations may also present in the throat or neck.

Why focus on this?

For those experiencing palpitations, they may seem alarming, but in most cases they are harmless and they are not a sign of a serious problem. The history of the patient is very important when diagnosing this.

Syncope (Fainting)

Syncope, also known as fainting, is complete or partial loss of consciousness. It is caused by a temporary reduction in blood flow leading to shortage of oxygen to the brain.

Why focus on this?

Accurate diagnosis relies on a good patient history being recorded and passed on with any referral. There are significant implications for patient quality of life in the event of a misdiagnosis.

Shortness of breath

Shortness of breath, also known as dyspnoea, is the feeling that one cannot breathe well enough. The symptom makes breathing difficult and can occur either acute or chronic to the patient.

Why focus on this?

Patients with this symptom may be directed through either a Cardiology or a Respiratory referral pathway and it may take some time in secondary care before the patient finds themselves on the correct pathway.

Chest pain

Chest pain is pain in any region of the chest. Chest pain may be a symptom of several serious disorders and is, in general, considered a medical emergency. Chest pain can be differentiated into heart-related and non-heart related chest pain.

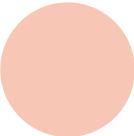
Why focus on this?

This is a common symptom which has multiple routes into care. Patient history is an important part of accurate diagnosis. Given the nature of the possible diagnosis for chest pain, many patients feel anxious.


Focus areas

The second step in the workshops involved a series of collaborative mapping sessions using tools designed to explore the current landscape. The visual and hands on tools helped the group to identify assumptions and insights about current Cardiology services. Mapping these services for each of the four different symptoms discussed above, the group highlighted regional differences and explored and shared best practice. After identifying and locating key areas on this map, the group collaboratively prioritised what to focus on. This then provided an end-to-end system context for the next step of generating ideas for sustainable improvements.


Map key




Focus Areas




Split / Referral




Steps



Primary Care

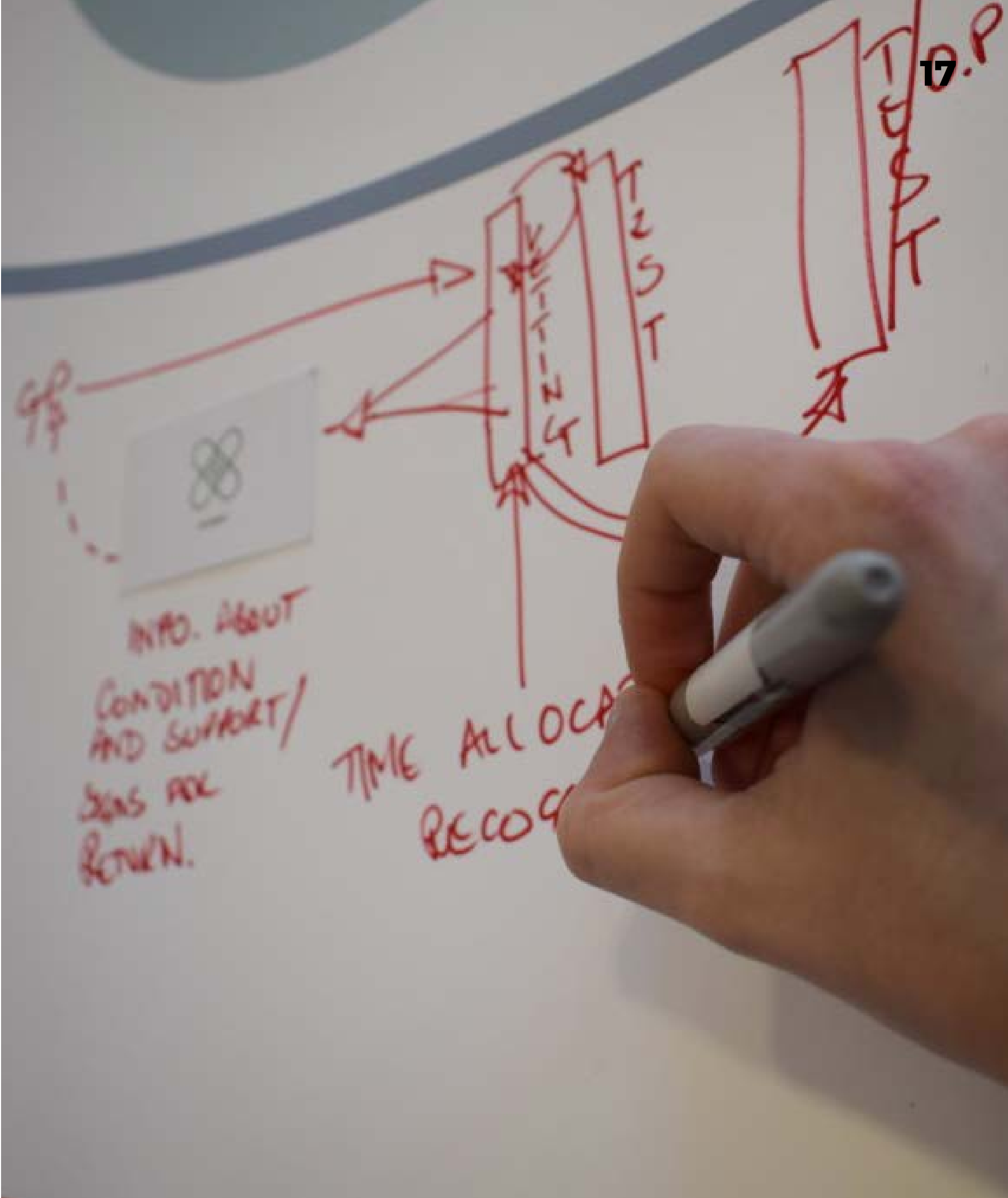


Secondary Care



Scottish Access Collaborative Principles

Following what emerged from the workshop, the DHI team translated the group’s discussions and maps into four summary maps illustrating and locating focus areas. These maps are categorised by symptom. However, many of the areas they show clearly stood out as important and challenging areas for more than one symptom, region or service. They are therefore key areas for improvement and could deliver significant impact for patients and staff.



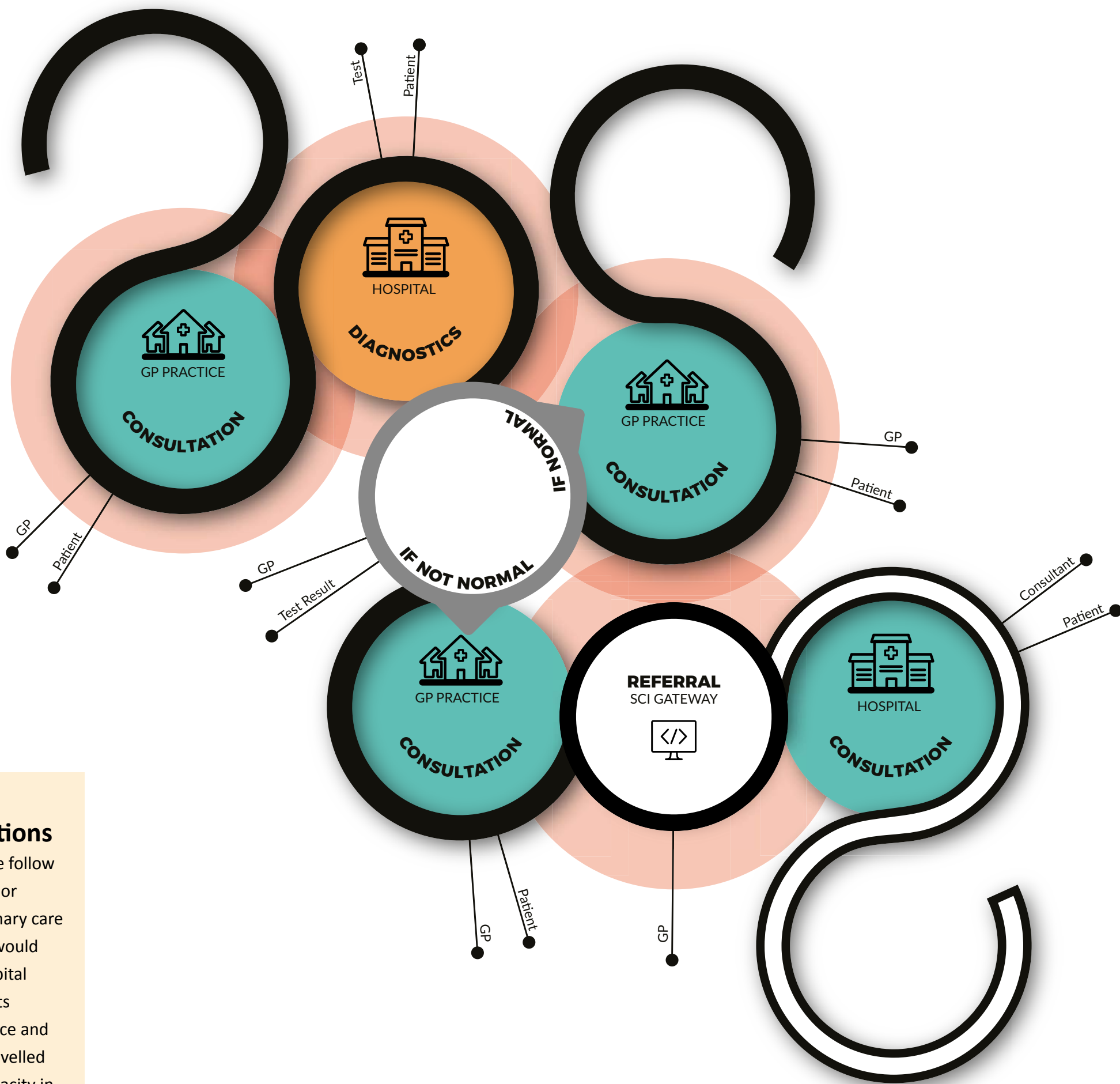
Palpitations

FOCUS 1
Referral guidelines
Currently there are no nationally available referral guidelines for GPs resulting in unnecessary referrals into secondary care.

FOCUS 2
Diagnostic ECG
Currently an ECG can be carried out in primary or secondary care. ECG tests in secondary care may involve an unnecessary journey to hospital for the patient.

FOCUS 3
Early Vetting
Effective vetting avoids unnecessary entry onto waiting lists, unnecessary appointments and improves patient and staff experience. A shortage of dedicated clinical time for vetting of referrals has resulted in variation of practice across health boards.

FOCUS 4
Return consultations
There are patients whose follow up care could be equally or better supported by primary care or the third sector. This would reduce the need for hospital appointments for patients improving their experience and reducing the distance travelled while also freeing up capacity in secondary care.



Syncope (Fainting)

FOCUS 5
Referral guidelines

Currently there are no nationally available referral guidelines for GPs resulting in unnecessary referrals into secondary care.

FOCUS 6
Patient history and information flow

History plays a vital role in the diagnosis and treatment of this symptom. Patient history may not always be shared between primary and secondary care and test results may not be reported back to all parties involved.

FOCUS 7
Test results availability

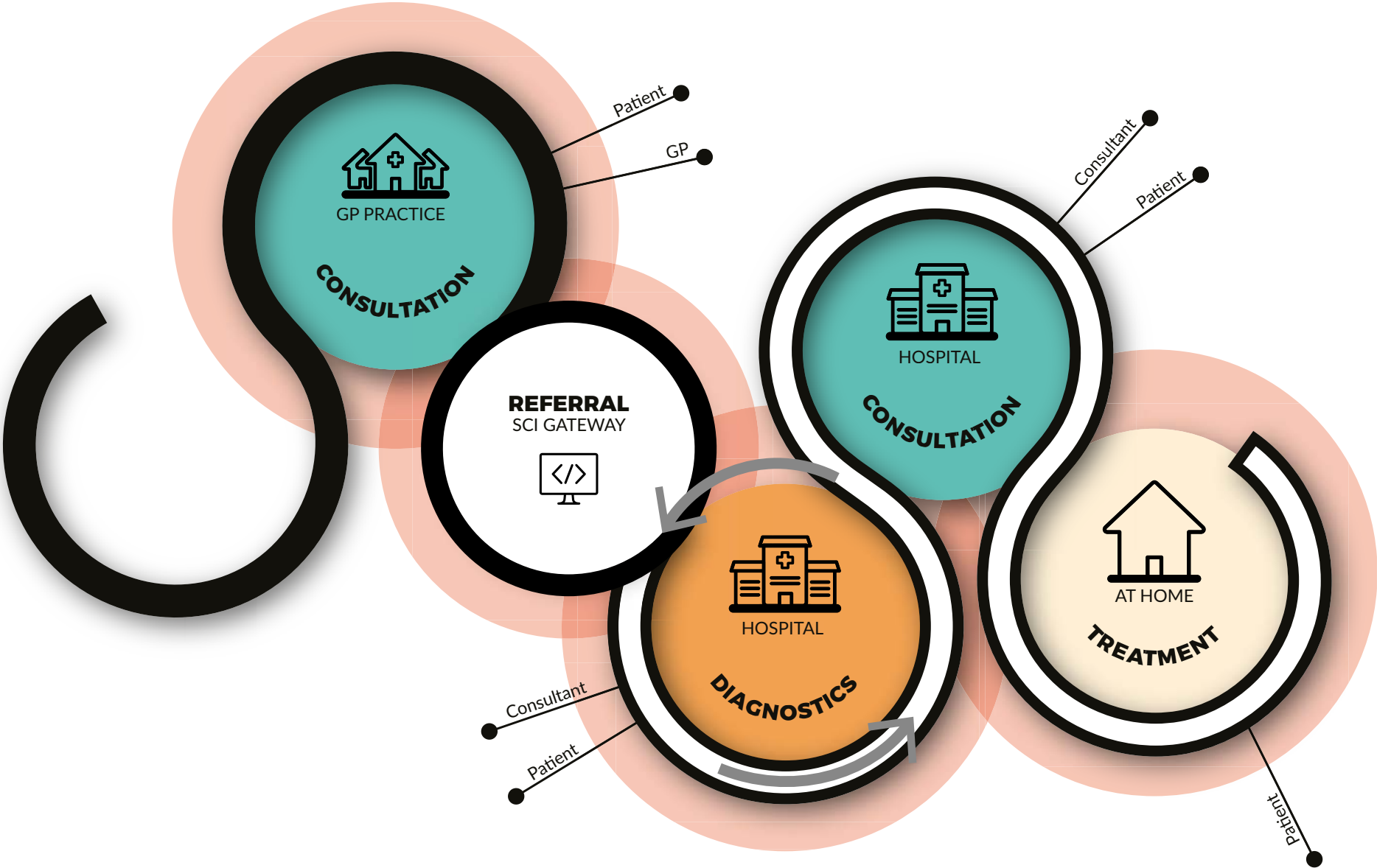
When tests are done, test results are not always automatically fed back to the GP resulting in the GP having to actively search for recent results and patient activity.

FOCUS 8
Related patient information

Information on other conditions the patient may have, is not always visible for the consultant.

FOCUS 9
Vetting

There is an overlap with Neurology for some patients who are admitted with syncope. Currently there is no dedicated cross-specialty support for vetting in these cases.

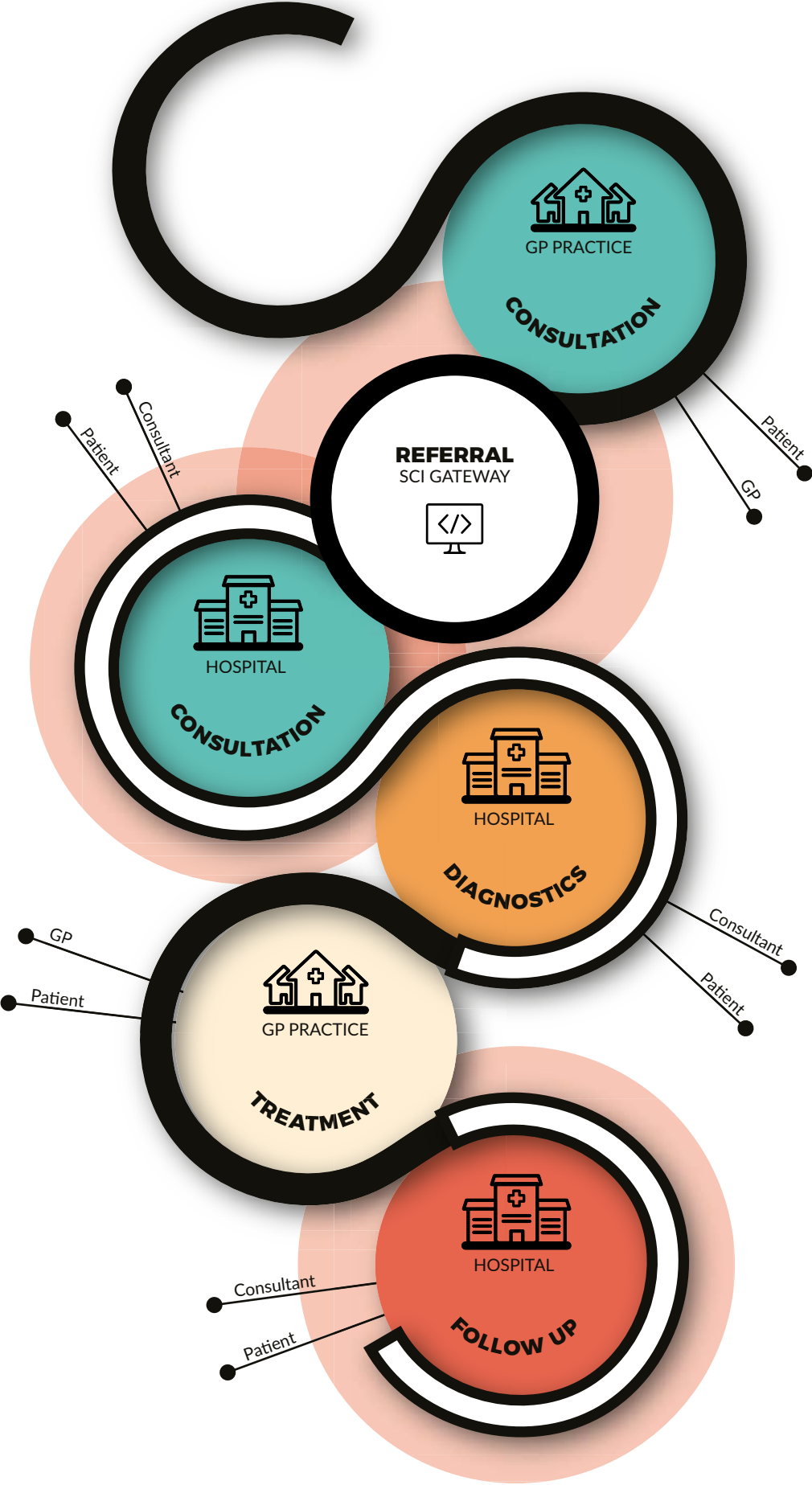


Shortness of Breath

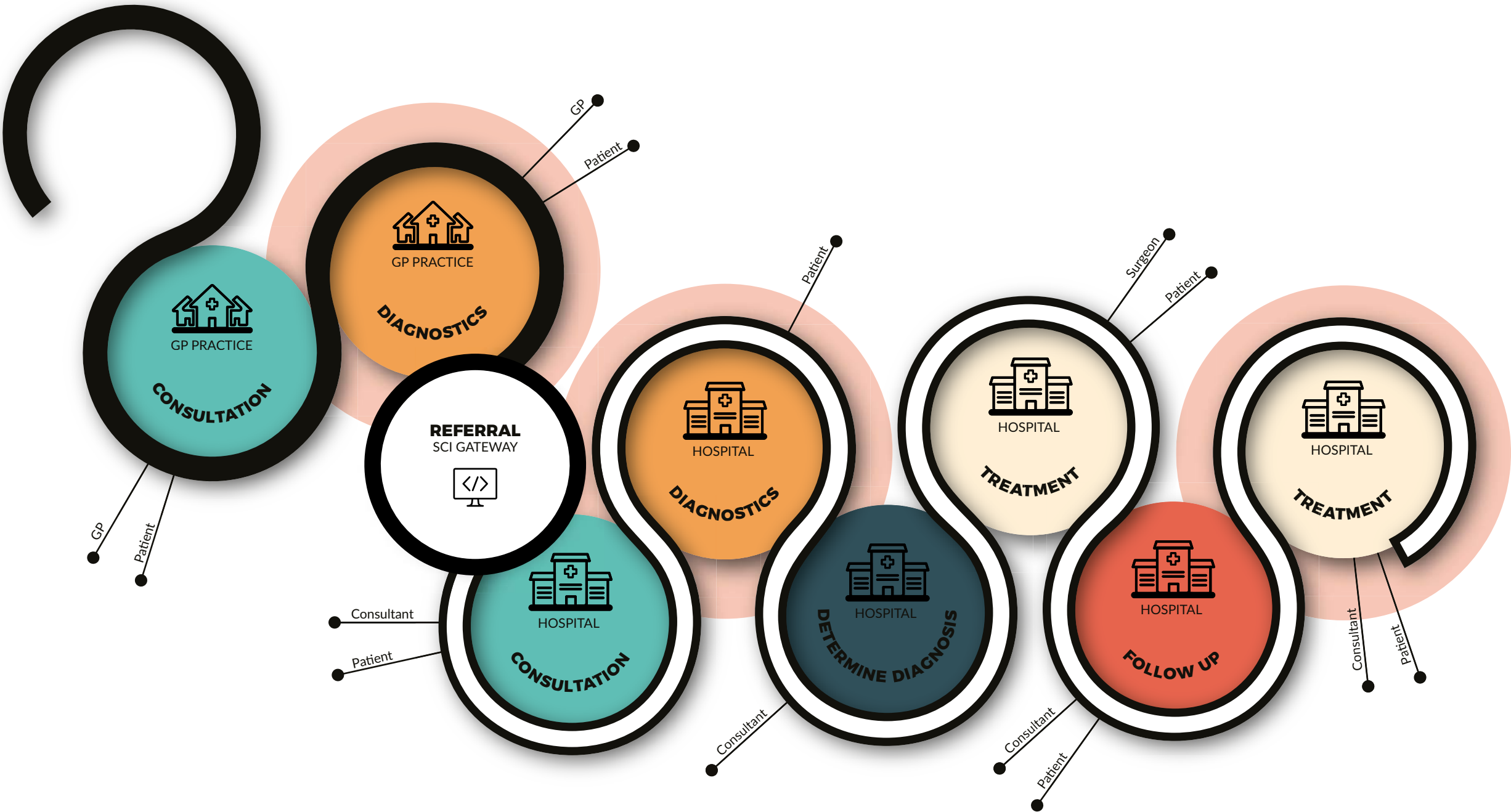
FOCUS 10
Getting patients onto the correct pathway
For this symptom there is a crossover with Respiratory and it can take time for patients to get onto the right pathway.

FOCUS 11
Coordination of diagnostic tests
Most patients are sent for a common suite of separate tests when they present with shortness of breath. The tests can be carried out in different locations and at different appointments which is inconvenient for the patient and stretches the time from referral to diagnosis and treatment.

FOCUS 12
Repeat testing
There is on occasion an issue with repeat tests that add little or no value, for example repeat Echocardiograms are routinely carried out when there has been no change in the patient’s condition.



Chest Pain



FOCUS 13
Inappropriate follow up appointments
Patients may be brought back for follow up appointments into secondary care with no added value to the patient. In some cases patients are brought back to clinic for test results which indicate no further care is needed.

FOCUS 14
Diagnostic tests
Currently an ECG can be carried out in primary or secondary care. ECG tests in secondary care may involve an unnecessary journey to hospital for the patient.

FOCUS 15
Inappropriate referrals to Rapid Access Clinics
A high volume of patients are referred to Rapid Access Clinics because the threshold for referral to this pathway is relatively low, resulting in unnecessary appointments and unnecessary travel for patients.

FOCUS 16
Referral guidance for ECG
A lack of referral guidance for GPs results in a lack of clarity when making a decision on whether to refer a patient for ECG or into Cardiology.

Outputs and Actions

The group started to uncover a number of improvement opportunities while mapping key areas within the current Cardiology service. These improvements have been cross-referenced with the six principles set out by the Scottish Access Collaborative. Many of the opportunities for improvement put forward address focus areas for more than one symptom and if successful could have significant potential for sustainably improving the balance between demand and capacity. The following summary also includes a set of other ideas which emerged during the discussion but did not relate directly to the symptom maps.

It should be noted that some opportunities for improvement will have a greater impact when implemented together with another option. For example improvements in vetting coupled with agreed referral guidelines would have a significant effect on the volume of referrals into secondary care.



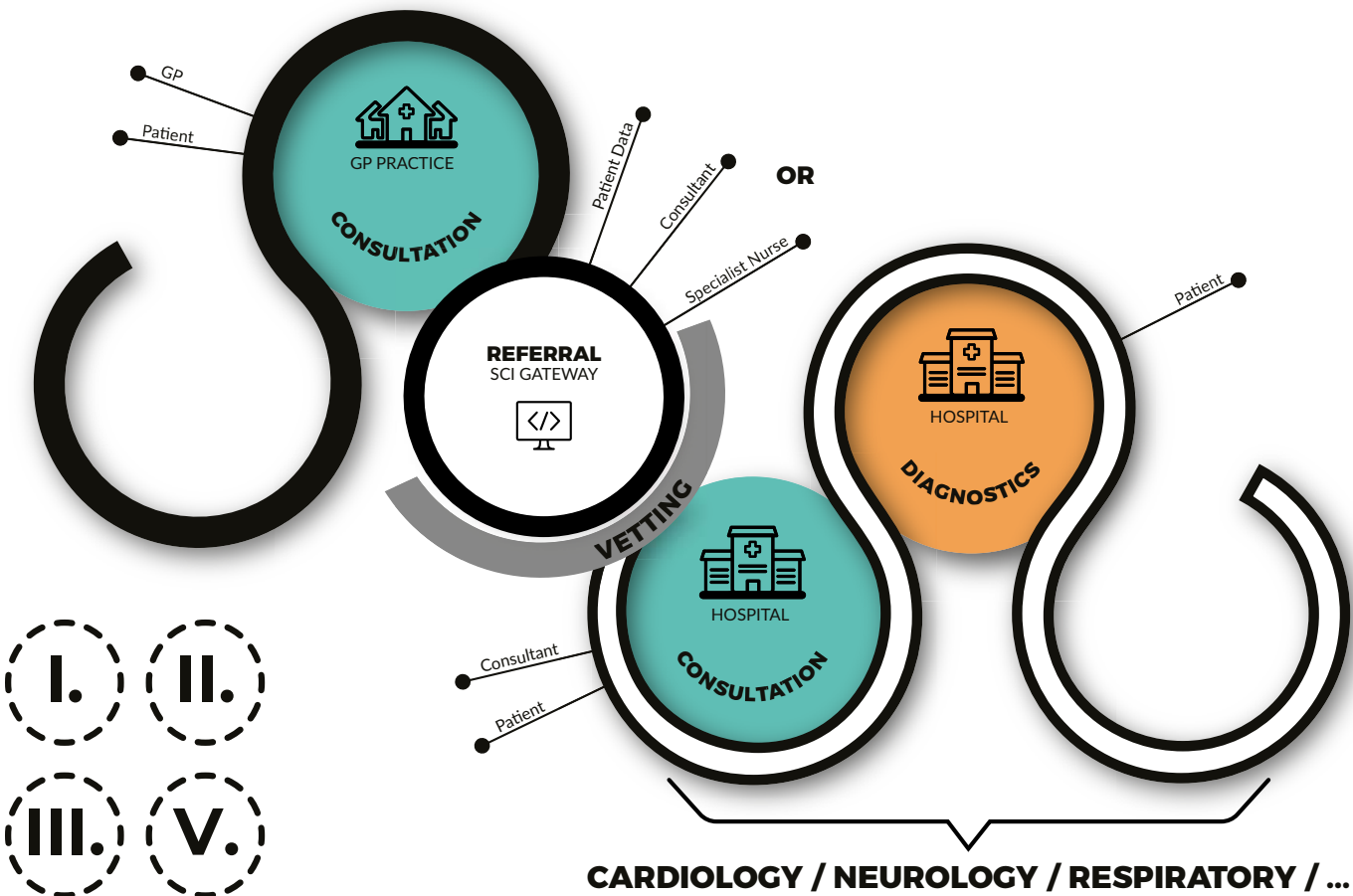
A. Appropriately resourced senior vetting process

Summary

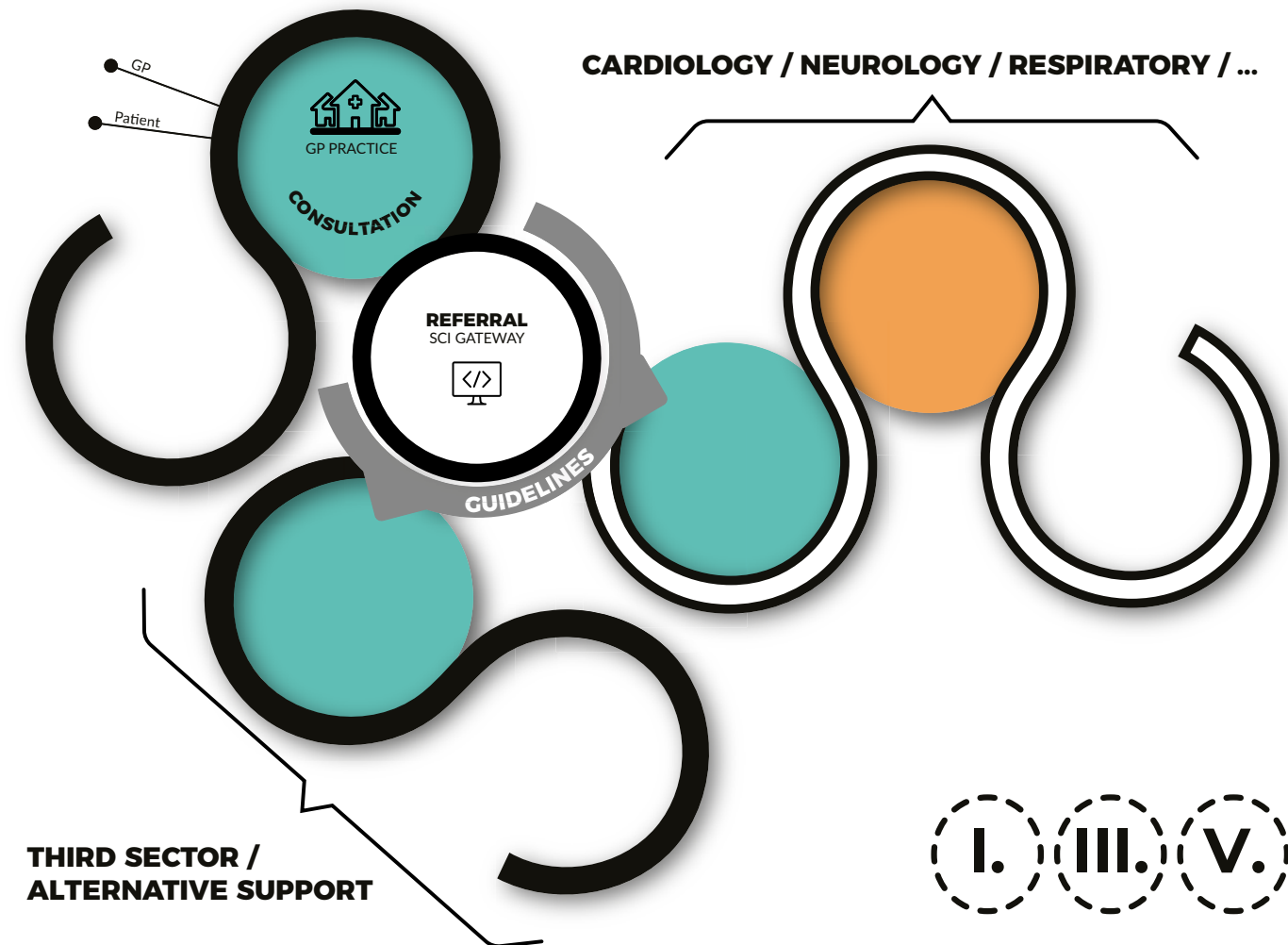
Early and appropriate vetting in Cardiology could reduce the number of patients attending unnecessary appointments. This could be a recognized role with dedicated time. This is happening in some locations but could be rolled out nationally. Cross-disciplinary vetting could better take into consideration detailed patient history and primary care options.

Impact

Vetting could decrease the number of patients presenting in secondary Cardiology care, patients being referred for unnecessary diagnostics, and free up appointment times for higher risk patients. There is an additional impact in areas such as palpitation where it is an advantage for the diagnosis to take place while the episode is fresh in the patients mind. Patients who fall into this sizeable category needing general reassurance and understanding of what has prompted the symptom can be identified early and removed from the outpatient waiting list freeing up capacity. This could help direct patients to the correct pathway where there are crossovers between specialisms, i.e. between Cardiology and Respiratory or Cardiology and Neurology.



B. National referral guidelines



Summary

Collaboration and discussion between secondary care clinicians and primary care clinicians could produce national GP referral guidelines into secondary care. This could usefully include options which do not involve a secondary care pathway. For example, easily accessed nationally available signposting to British Heart Foundation and Chest Heart & Stroke and locally available support from the third sector, made available through one portal. Anxiety can be connected to some Cardiology symptoms, and the guidelines could include a pathway to psychological treatment, as an alternative to secondary care.

Impact

Successful guidelines could significantly reduce the number of patients being referred for unnecessary appointments, preventing patients travelling unnecessarily, and reducing the number of no-added value appointments.

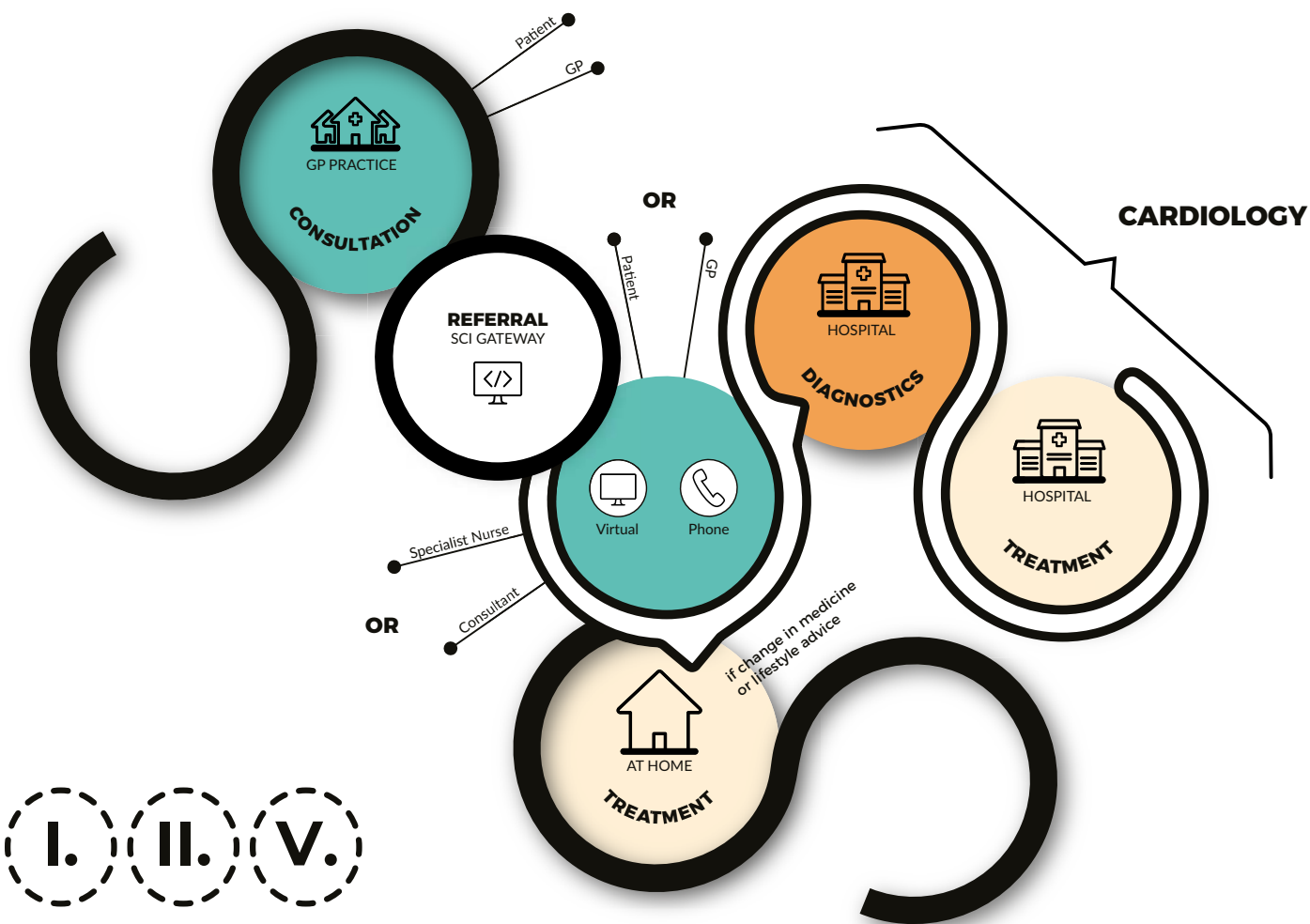
C. Virtual consultation

Impact

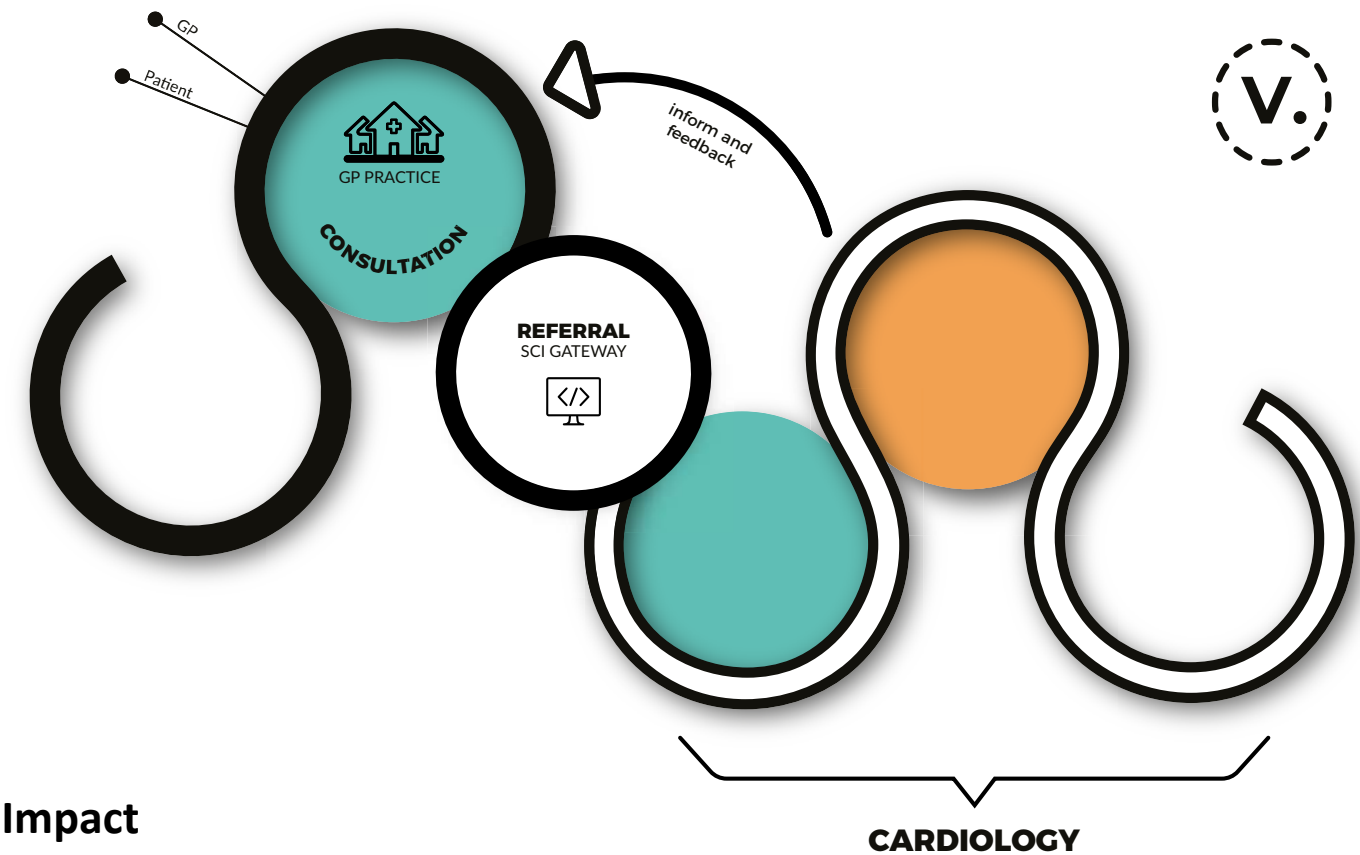
Virtual consultations could make the necessary advice and guidance available when needed and reduce traveling times.

Summary

After an initial consultation with a GP and appropriate referral, the patient will have virtual or telephone consultation with the clinic in secondary care. This may be done by a specialist nurse or consultant. At this point, low risk patients can be filtered out from higher risk patients. Diagnosis and treatment plans can be determined for the patient to follow, without the need for face to face appointments at the clinic. This applies when life style advice or change in medicine is the treatment. Higher risk or more complex cases can be referred to specialist nurse-led clinics or consultant-led clinics. The virtual consultation could be provided by a special virtual Cardiology clinic. This service could be extended to the option of a GP seeking advice from a cardiac consultant virtually.



D. Push notification system for patient information



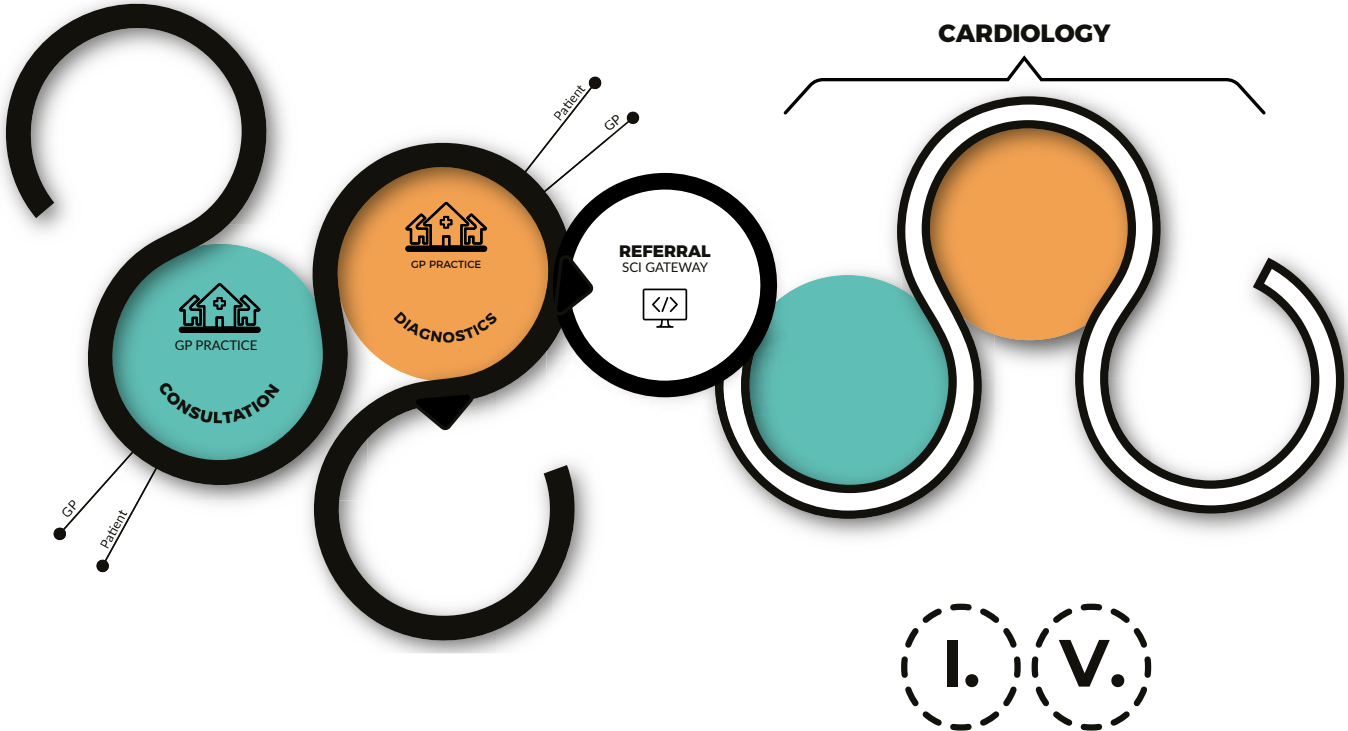
Impact

The current system leads to delays in clinicians accessing test results with a knock-on effect on patient waiting times. A more proactive system would solve this issue and also offer the possibility of negative test results to be delivered earlier, avoiding unnecessary outpatient appointments. More complete patient records would help clinicians make appropriate decisions about patient care and reduce repeat steps.

Summary

A recommendation could be made for facilitating a proactive push function within the current system, connecting primary and secondary care. The system could inform the GP of the latest test results and status of a patient who has been sent to secondary care. This could include test results or further references etc. This could decrease the number of status consultations between the GP and patient.

E. Primary care diagnostic hub



Summary

A hub in primary care could be formed which acts as a local centre for ECG and other common diagnostic testing for Cardiology. The hub could also act as a centre for training and guidance for primary care teams and other healthcare professionals, ensuring consistent execution of testing. Any proposal would have to allow flexibility to adapt to local conditions.

Impact

ECG testing can feasibly be carried out in primary care significantly reducing the number of patients being sent to secondary care for the test. There are a suite of common tests currently being carried out for many Cardiology symptoms. Bringing these under 'one roof' would prevent patients bouncing around the system and reduce their waiting time for results. As a knock-on effect capacity would start to build within primary care to diagnose patients who can more usefully be supported in primary care or in the community.

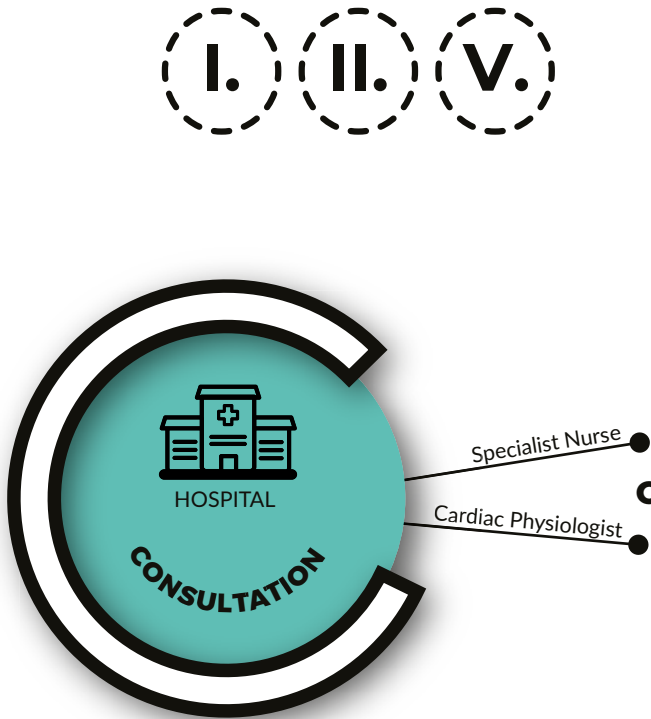
F. Specialist nurse and/or cardiac physiologist led pathways

Summary

Setting up the pathway for the specialist nurse or cardiac physiologist to identify patients with low risk who can be referred to a nurse-led clinic would ease demand in secondary care ensuring the patient sees the appropriate person.

Impact

Low risk patients avoid unnecessary waiting time for an outpatient appointment in Cardiology. There is an overlap between the implementation of this option and the development of clear GP referral options.



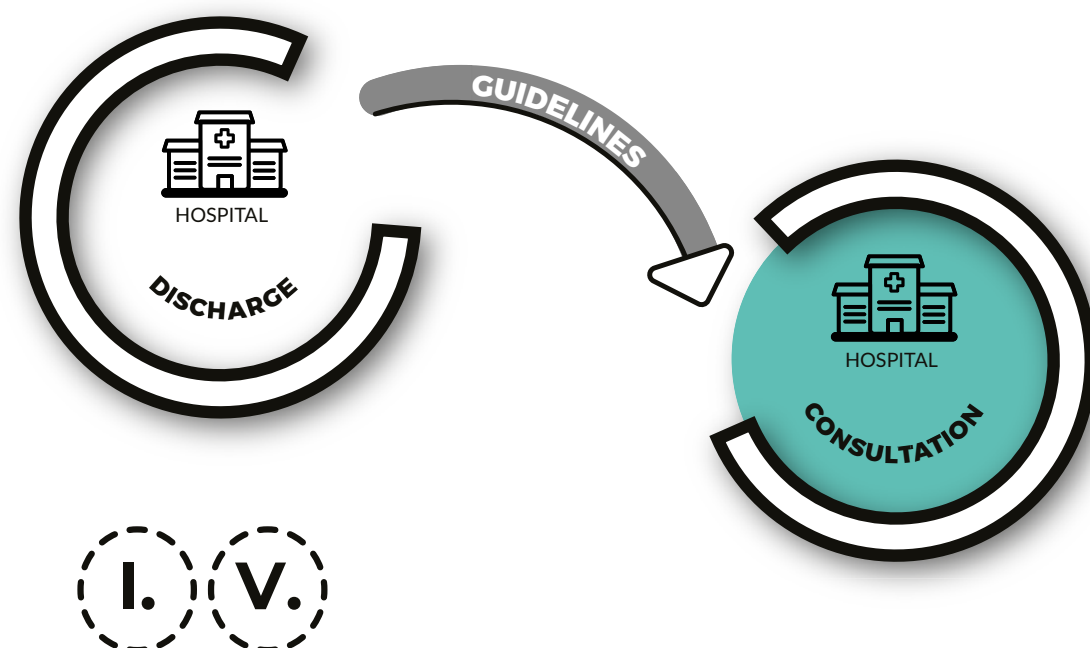
G. Patient-led follow up

Impact

Changes to the way in which patients are discharged could have a significant impact on patient experience and relieve demand on primary and secondary care.

Summary

A defined patient-led route back into secondary care could replace unnecessary routine return appointments. If appropriate, patients could be offered the option for a return appointment if they experience clinically predefined changes in their symptoms within an agreed timescale.



Other Ideas

Recommend Rhythm Monitor (email suggestion)
I think what we need to do here is minimise the use of 24-hour tapes, which are expensive and time consuming to analyse, particularly the multiday monitor ones. I certainly favour looking at the simplest means of monitoring which I'm told by our technicians remains the R test monitor, as it requires minimal analysis by them.

CTCA is not widely used as a first line diagnostic, however it is more effective than the current suite of tests.

Signpost self-management options to patients.

Allocate more time for vetting.

Set up a system to ensure kit which is given to patients is returned.

Consider the introduction of the Kardia system or similar kit which also carries out a certain amount of analysis. The aim here is to identify the patients with normal readings as early as possible allowing early reassurance.

Co-ordinate treatment of co-morbidities.

Joined up IT system between primary and secondary care.

Agree guidance on a consistent approach to consultant care after treatment.

Reach hard to reach groups. (This was noted from an early engagement meeting)

Offer GP support from consultant and/or nurse led clinics.

Support patients to be discharged but easily re-accessing the system.

Manage patient expectations with respect to needing to see a consultant and waiting times.

Ensure consistent high quality of recorded data.

Next Steps

It is clear from the Cardiology Speciality Sub-group that there was broad agreement on the areas that would make the most difference to patients across Scotland who present with Cardiology symptoms.

Work to further scope these will be undertaken in the coming months thereafter allowing a prioritisation process to take place through the Scottish Access Collaborative (SAC). Future work will involve national support to ensure the Cardiology community, along with primary care partners, are supported to make the necessary changes to ensure efficient and effective patient pathways are achieved. It is envisaged that the work areas will be taken forward either through the Cardiology community itself or for broader issues which are not specialty specific, be attached the SAC Combined Action Group (CAG). The CAG’s purpose is to address cross-cutting areas of challenge.

Picking each proposal from the outputs and actions section one by one:

A.
Appropriately resourced senior vetting

This concept will be taken forward through the Scottish Access Collaborative (SAC) Active Clinical Referral Triage (ACRT) work stream

D.
Push notification system for patient information

This work will be aligned to the SAC Reliable Results Workflow

F.
Specialist nurse and/or cardiac physiologist led pathways

This work will be taken forward through a Cardiology community led improvement programme

B.
National referral guidelines

This work will be taken forward through the SAC Pathways work stream which includes reviews of national international development such as the Canterbury model from New Zealand

E.
Primary care diagnostic hub

This area will be taken forward through a Cardiology community led improvement programme

G.
Patient-led follow up

This work will be taken forward through a Cardiology community led improvement programme

C.
Virtual Consultation

The concept will be dealt with through the SAC Virtual Attendance work



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DHI is a collaboration between:

**THE GLASGOW
SCHOOL OF ARE**

