

The Gastroenterology digital playbook

How digital technology can help deliver service improvement and transformation

6 December 2021

NHSX - Gastroenterology Digital Playbook

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Digital playbooks: supporting design of digital pathways



Users can scroll through different scenarios, care pathways or a library of case studies

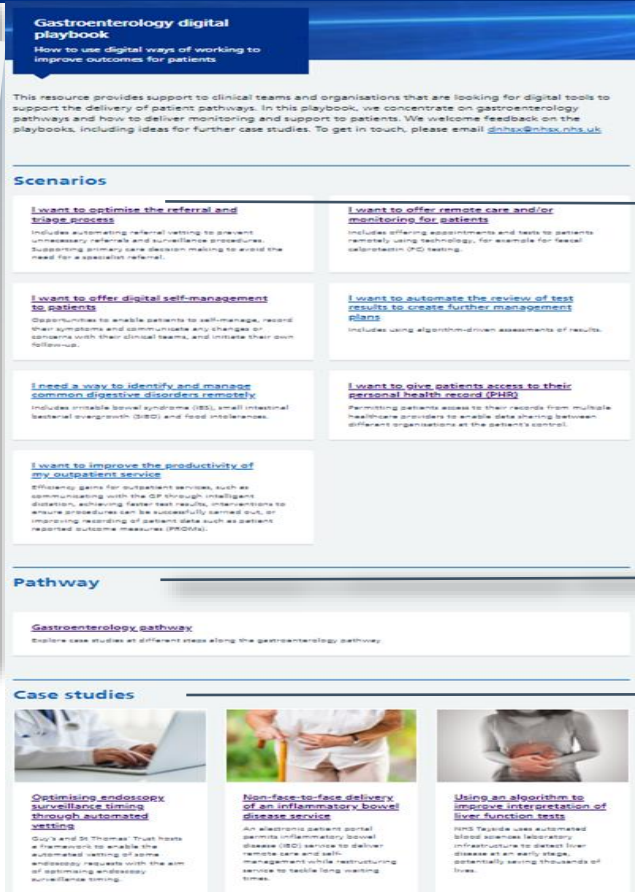
Clinically identified significant problems and their solutions linked to in the case studies

Solutions set out along the pathway

Case studies grouped for ease



The playbook landing page can be found here:
<https://www.nhs.uk/key-tools-and-info/digital-playbooks/>



Implications of digital transformation



- Not a wholesale switch to a totally digital or tele- medicine model: right solution, right patient
- Not merely a switch from one paternalistic model of care to another, merely digital
- Telehealth vs telemedicine
- Changing goals for face-to-face consultations (more informed, more reflective)
- Data as a strategic asset: for patients; for Dr:Pt interaction; for healthcare systems
- Improvement in 'activation': empowerment, knowledge, skills



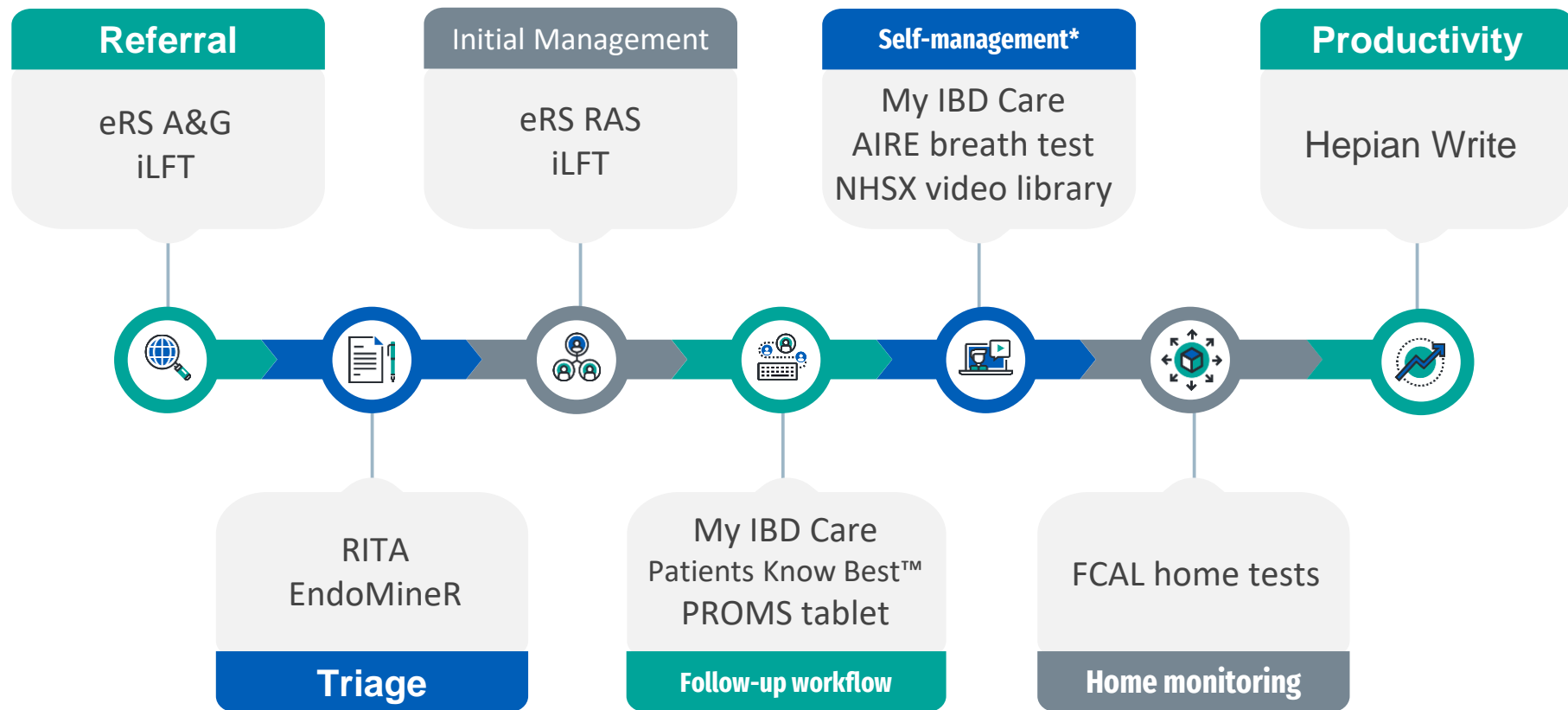
Digitise



Connect



Transform



The next 12 months (beyond)



- Embedding innovation in clinical pathways
- Data/narrative gathering and reporting
- Making connections

- Developing/refining existing technology
- Horizon scanning
- ADOPTION FUND OPEN NOW!

- bu.hayee@nhsx.nhs.uk

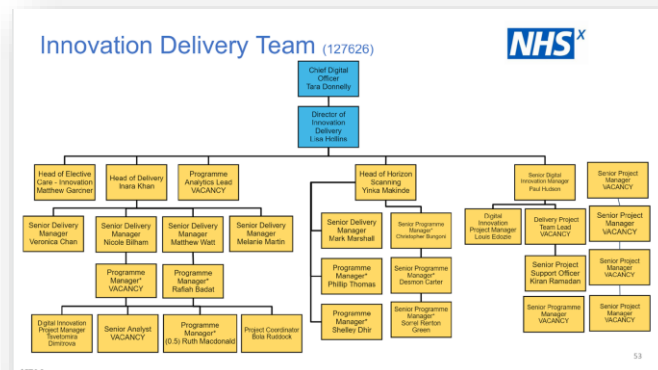
Meet the team



Lisa Hollins
Director of Innovation



Inara Khan
Head of Delivery



Catherine Chandler
Clinical Advisor



Veronica Chan
Senior Delivery Manager



Tsvetomira Dimitrova
Digital Innovation Project Manager



Bu'Hussain Hayee
Clinical Lead

- View the Gastroenterology digital playbook: <https://www.nhsx.nhs.uk/key-tools-and-info/digital-playbooks/gastroenterology-digital-playbook/>
- Email for playbook updates and more information: dnhsx@nhsx.nhs.uk
- Gastroenterology funding: <https://www.nhsx.nhs.uk/key-tools-and-info/funding-opportunities-to-improve-digital-pathways/gastroenterology-funding/>

MyIBD Care

Dr Gareth Parkes

Consultant Gastroenterologist &

Medical Director of Ampersand Health

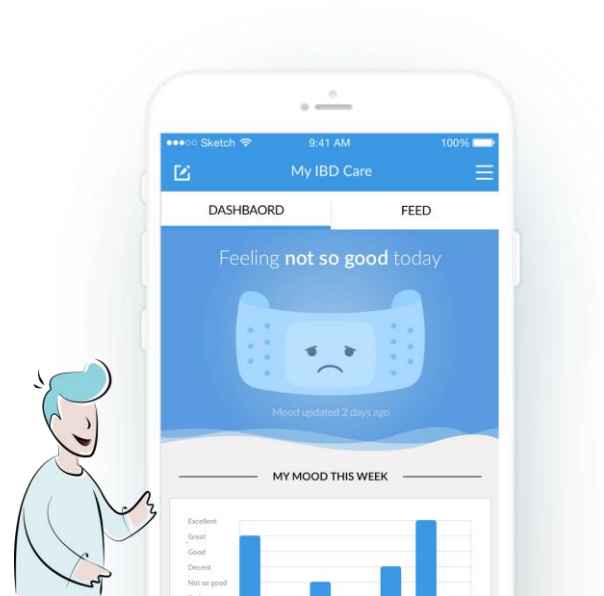
Declarations

- Dr Gareth Parkes has received:
 - Personal payments/honoraria/speaker fees: AbbVie, Allergan, Ferring, Galapagos, Janssen, Napp Pharmaceuticals, Takeda, Tillotts
 - Travel grant or fellowship - AbbVie, Ferring, Janssen, Takeda, Tillotts
- Dr Gareth Parkes is a director and shareholder in Ampersand Health

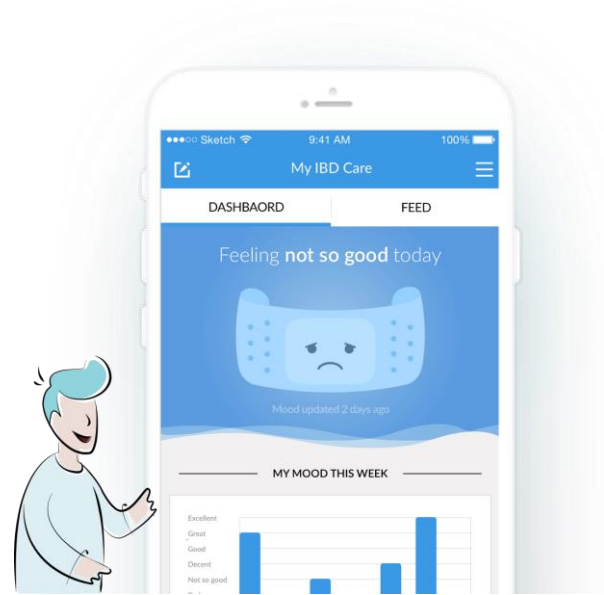
Why IBD?

Tour of the App

Pilot Data



Why IBD?

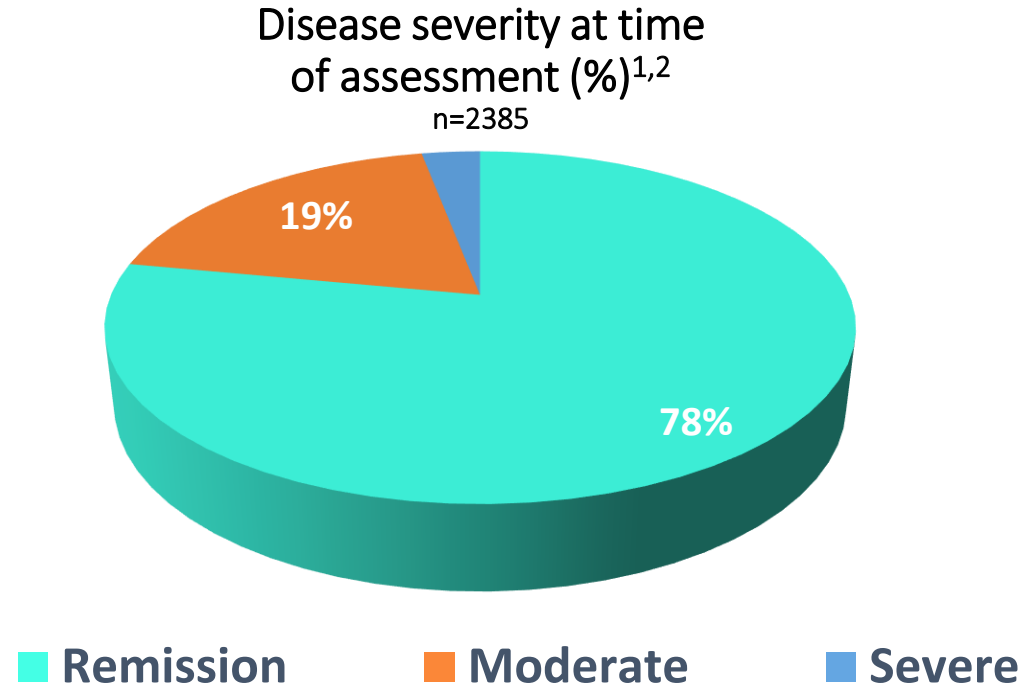


Why go digital with IBD?

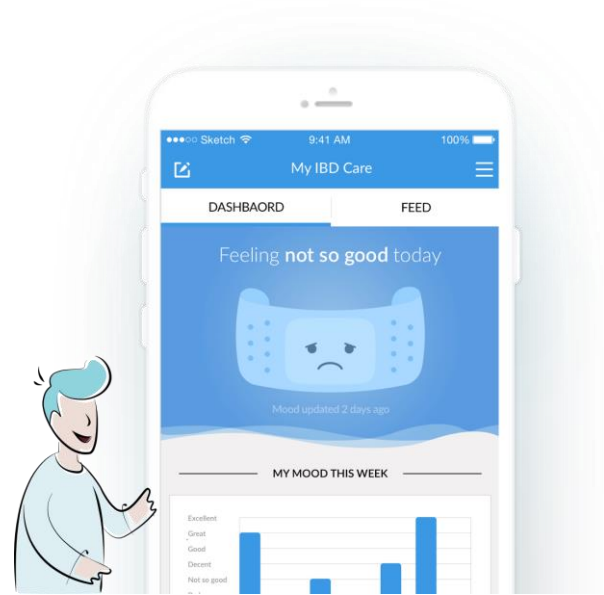


Why do patients come to clinic?

- New patient
- Flaring
- Monitoring of blood test
- Tradition
- Chat about grandchildren



Tour of the app



Speaker's own image with permissions granted.
Dr Gareth Parkes is a director and shareholder in Ampersand Health.



Welcome back,
GARETH PARKES

Password

Face ID

Forgot your password? [RESET](#)

SIGN IN

Not you? [LOG IN](#) as someone else

Read our [Terms & Conditions](#) or [Privacy Policy](#)

Speaker's own video with permissions granted.

Dr Gareth Parkes is a director and shareholder in Ampersand Health.

Project achievements and impacts

Service evaluation

Impact of Covid-19

Patient numbers as of April 15, 2021

RLH – 96

KCH – 190

- RLH site – two consultants and four IBD nurses using the site
- Regular project evaluation with management involvement
- Development of virtual review clinics
- Automatic reminders to patients with outstanding PROMS for KCH

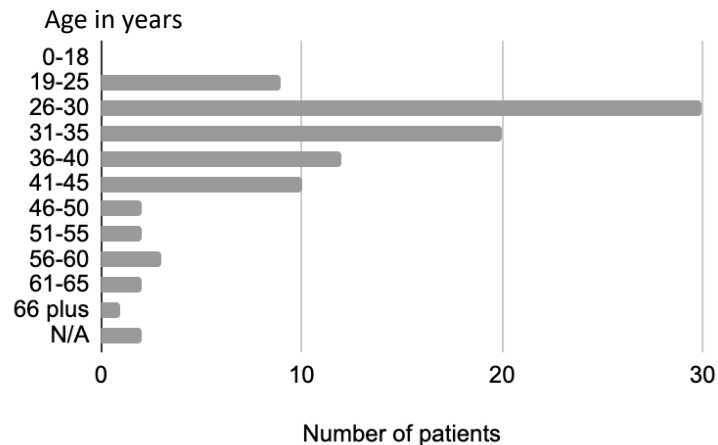
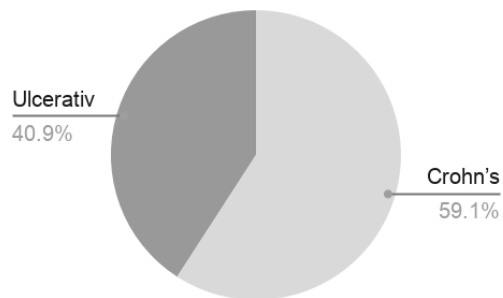
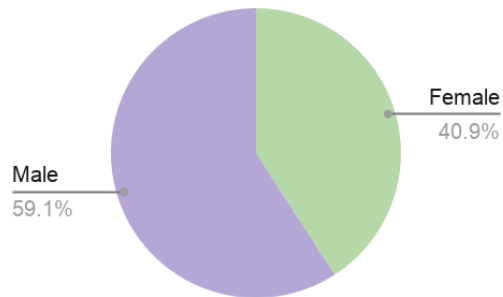
Dr Gareth Parkes is a director and shareholder in Ampersand Health.

IBD, inflammatory bowel disease; KCH, King's College Hospital; PROM, patient-reported outcome measure; RLH, Royal London Hospital.

Unpublished service evaluation study and quantitative analysis data provided by Parkes G (2021), Royal London Hospital Barts Health.

Demographics: RLH

n=96



Medication Name	No. times listed
Adalimumab	26
Infliximab	19
Ustekinumab	6
Vedolizumab	12
Tofacitinib	2
Methotrexate	6
Azathioprine	32
Mercaptopurine	5
Mesalazine	24
Allopurinol	4
Nil	7

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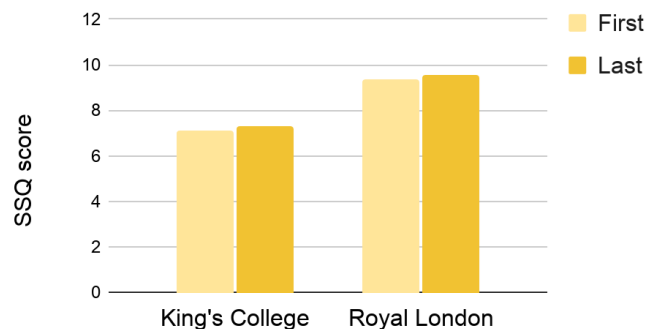
N/A, not available; RLH, Royal London Hospital; Ulcerativ, ulcerative colitis.

Unpublished service evaluation study and quantitative analysis data provided by Parkes G (2021), Royal London Hospital Barts Health.

Patient activity

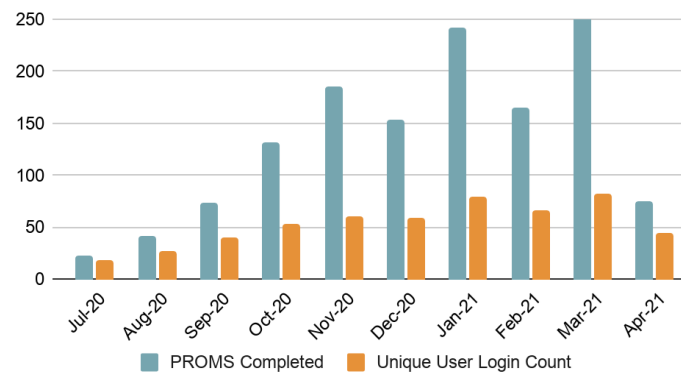
Use of the My IBD Care app & hospital ratings n=286

Ratings of hospital services

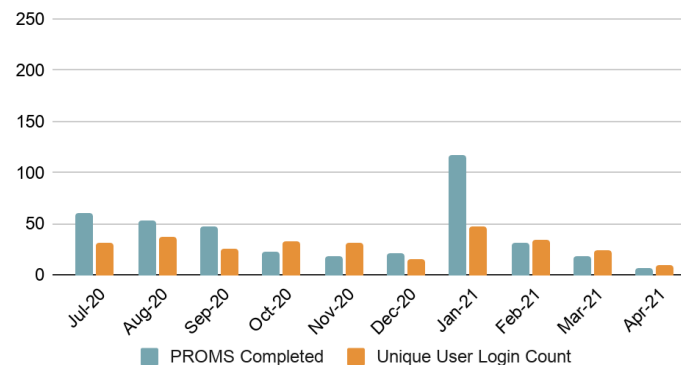


	Appointments logged in app	Average number of logins (July–April)	Average days between logins
Royal London	280	15.44	22.73
King's College	53	8.5	39.91

Royal London Patients



King's College Patients



Dr Gareth Parkes is a director and shareholder in Ampersand Health.

IBD, inflammatory bowel disease; PROM, patient-reported outcome measure; SSQ, social support questionnaire.

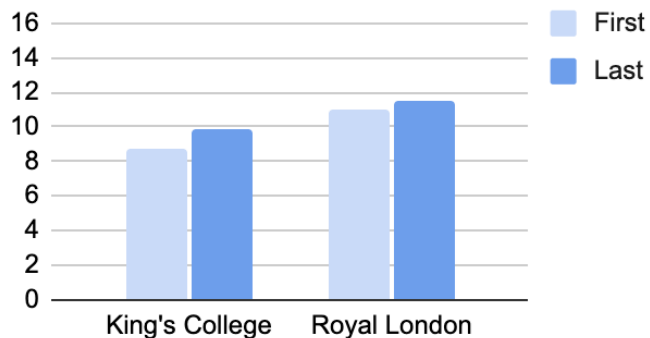
Unpublished service evaluation study and quantitative analysis data provided by Parkes G (2021), Royal London Hospital Barts Health.

PROMs outcomes

Collected using the My IBD Care app

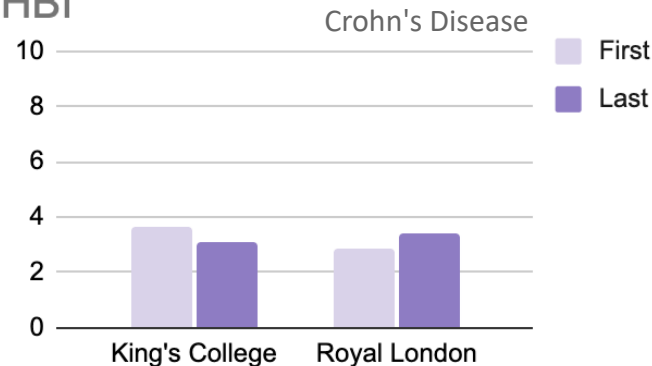
n=286

IBD-Control

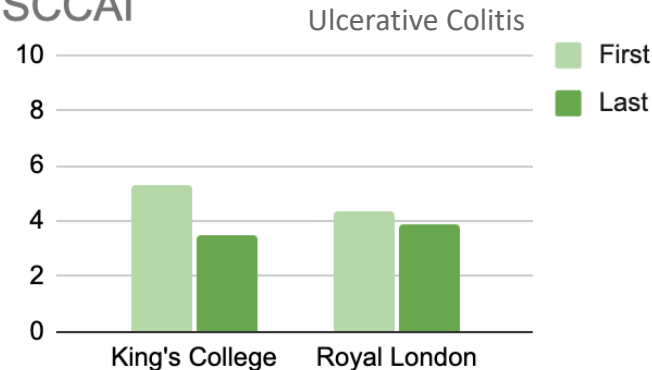


No significant differences in PROM scores between first and last measures

HBI



SCCAI



Dr Gareth Parkes is a director and shareholder in Ampersand Health.

HBI, Harvey-Bradshaw Index; IBD, inflammatory bowel disease; PROM, patient-reported outcome measure; SCCAI, Simple Clinical Colitis Activity Index.

Unpublished service evaluation study and quantitative analysis data provided by Parkes G (2021), Royal London Hospital Barts Health.

Project achievements and impacts

Service evaluation

- 32% reduction in appointments (including face-to-face appointments and phone calls) compared with baseline (pre-app) data
- 1.7 fewer appointments per patient per year, compared with baseline (pre-app) data



Using eRS to streamline patient care

Lynsey Corless

Consultant Gastroenterologist/Hepatologist

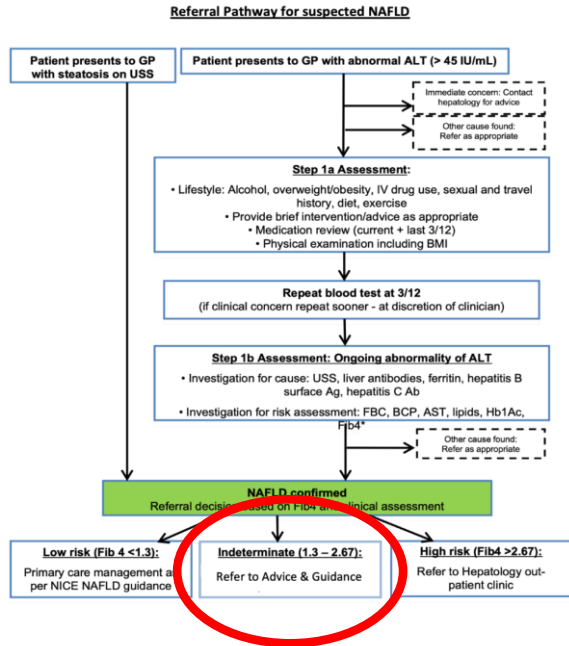
Hull University Teaching Hospitals NHS Trust

- Hull
 - Large teaching hospital with big geographical catchment area
 - Secondary, + some tertiary services within Gastro
- 4 years of using eRS
- Liver OP service improvement in NAFLD
 - Seeing those who didn't need us
 - Meeting many with advanced disease for first time as IP
- Possible: Technology in place + Trust push to use it
- Key motivation was effectiveness
 - Waiting list pressure post-Covid is now equally significant

Clinical need

Appetite for change

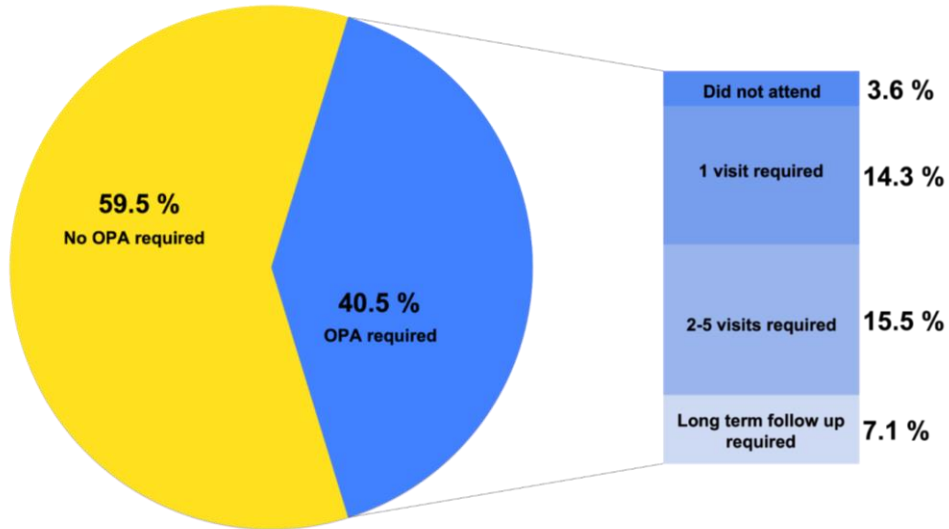
2017: eRS included in NAFLD pathway



- Move to primary care based diagnosis and risk stratification in NAFLD
- In line with clinical developments
 - Non-invasive fibrosis assessment
 - Evolving therapies
 - Scale of prevalence
- Advice and Guidance on eRS included to support primary care decision making

2018: Extended beyond NAFLD + ?Fib4

- Not intentional!
- 84 patients had virtual 1st review
- 59.5% no OPC
 - 4.2 unused OPC/month
- 65% of OP need was for Fibroscan
 - 40% of those discharged after normal result



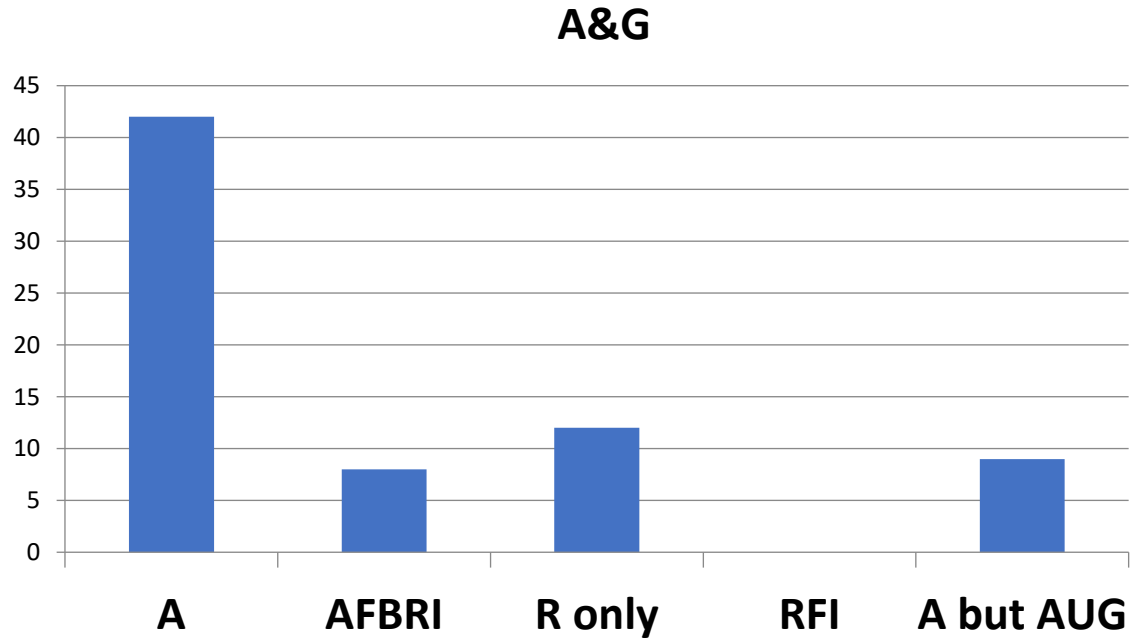
Lessons learned

- Avoided significant number of secondary care referrals altogether
- Those who were seen had more investigation/stratification/management arranged prior to visit
- Most appropriate clinic
- Less return visits
- Empowering primary care to confidently manage this group

2018: Gastroenterology pilot

- Goal to expand to all of Gastro
- Unease from some
 - Ability to do Gastro remotely
- Started small
 - Basic queries only

2018: Gastroenterology pilot



Key:-

A: Advice only

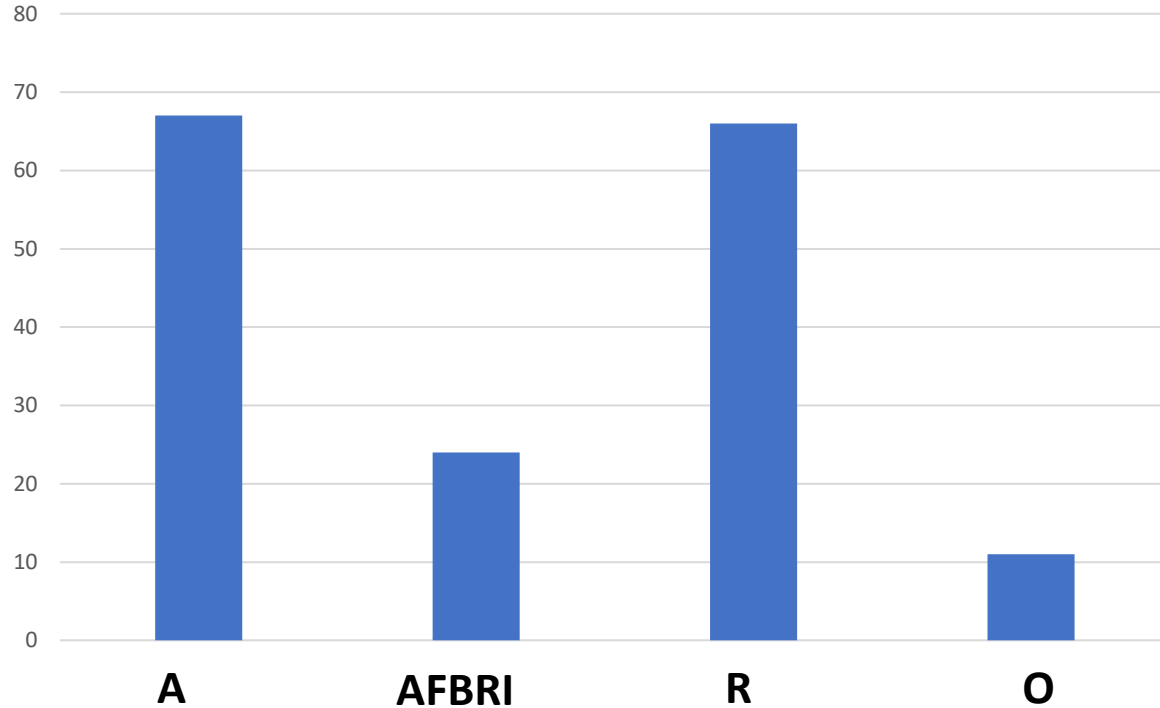
AFBRI: Advice followed by referral if needed

R: Referral only

RFI: require further information

A but AUG: Advice only but already under Gastro

2019: Gastroenterology after 1 year



Key:-

A: Advice only

AFBRI: Advice followed by referral if needed

R: Referral only

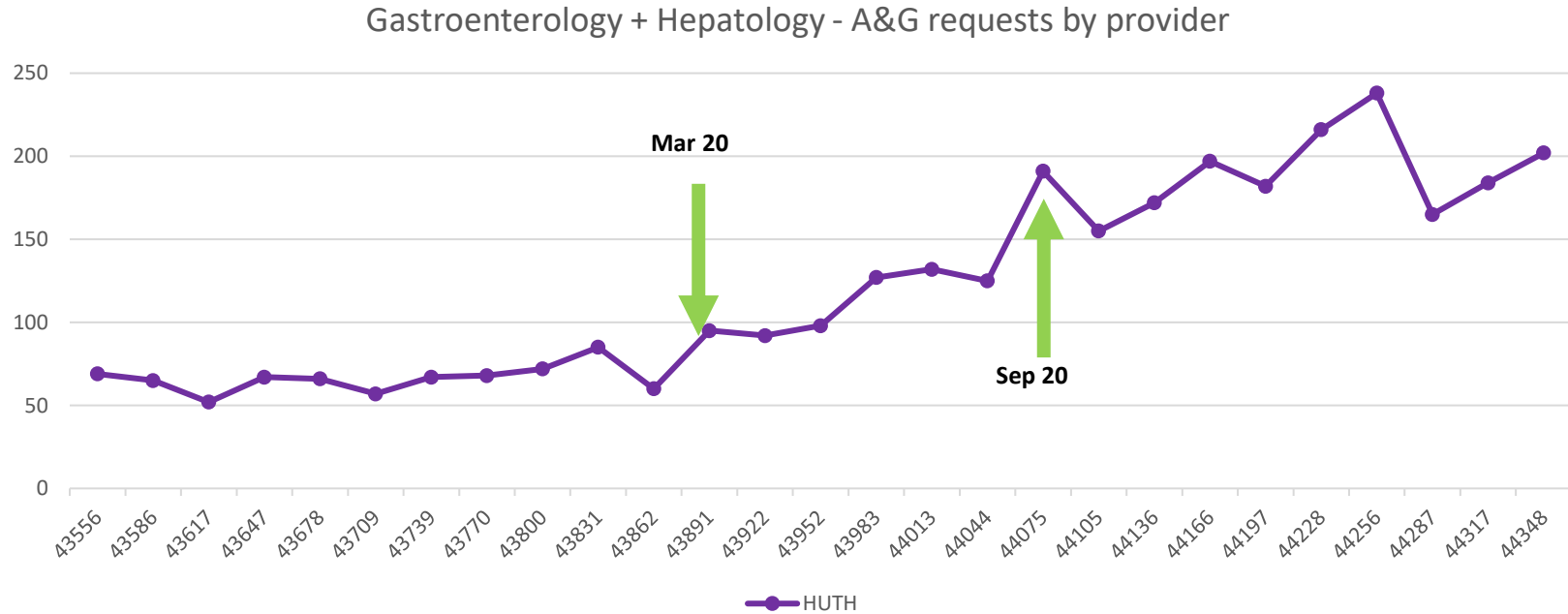
O: Other

Reflects increasing
breadth/complexity of
requests as word spread

2020: Covid

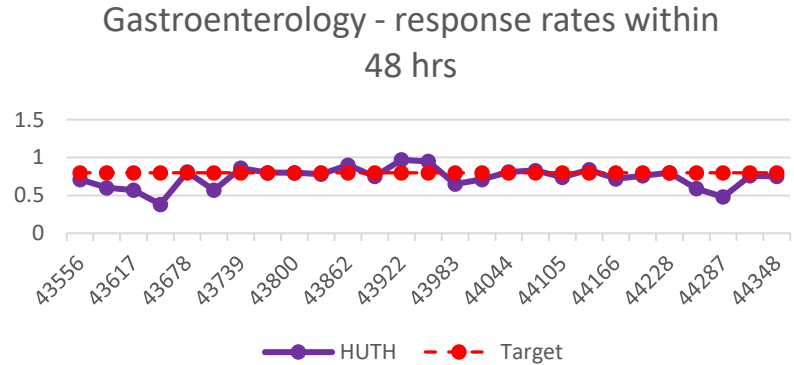
- Immediate upscale to all of Gastro
 - No clinics = GPs highly incentivized to use A&G
- Post Covid
 - Backlogs = GPs highly incentivized to use A&G
 - Trust/CCG push to stop all paper/fax correspondence
- Aim for all clinical communication to be via A&G
 - Changed pattern of requests received

Service demand Apr 19 – Jun 21

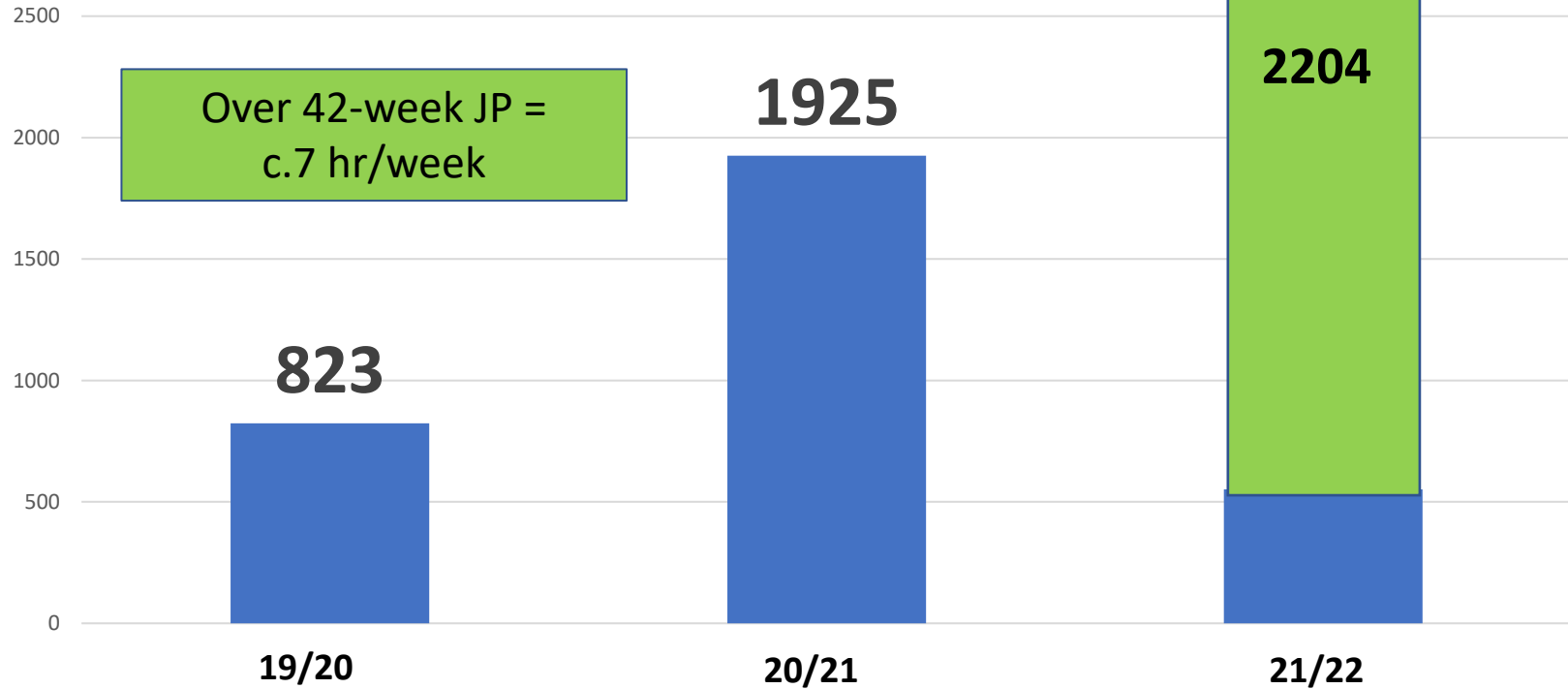


All of this takes time...

- A lot to do it properly
 - > 1 person to ensure timely response
 - Need consistency too
- Each referral takes time
 - Less than a clinic slot
 - Too much to accommodate within existing admin session
- Anticipate demand will rise quickly after opening



Year on year increase in demand



Has it improved our service?

- Many referrals avoided, or management started prior to review
 - Revealed where education/pathways needed to support PC management
- Hepatology has better advice:referral ratio than Gastro
 - Good starting point for those who aren't using yet
- Requires support of Trust
 - Requires effort and consistency to be of value
 - Must be job planned

Acknowledgements



Data contributions from:

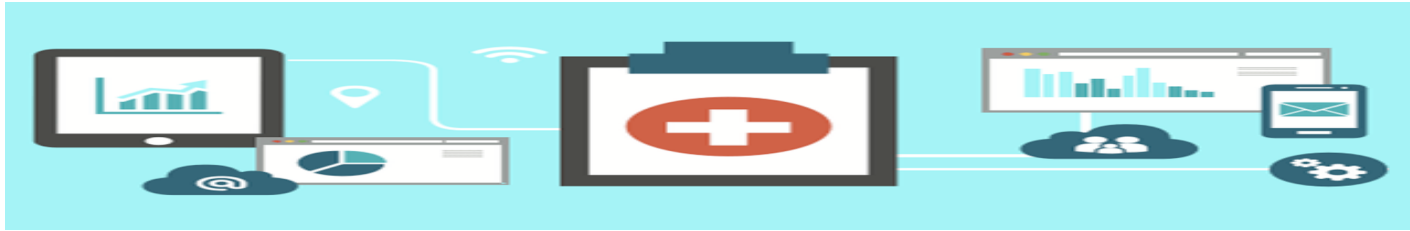
Jack Kane

Shaw Keith Lau

Maged Messiha

Alison Stainsby





Going digital
in Inflammatory bowel disease care

Prof S Sebastian

IBD unit, Department of Gastroenterology

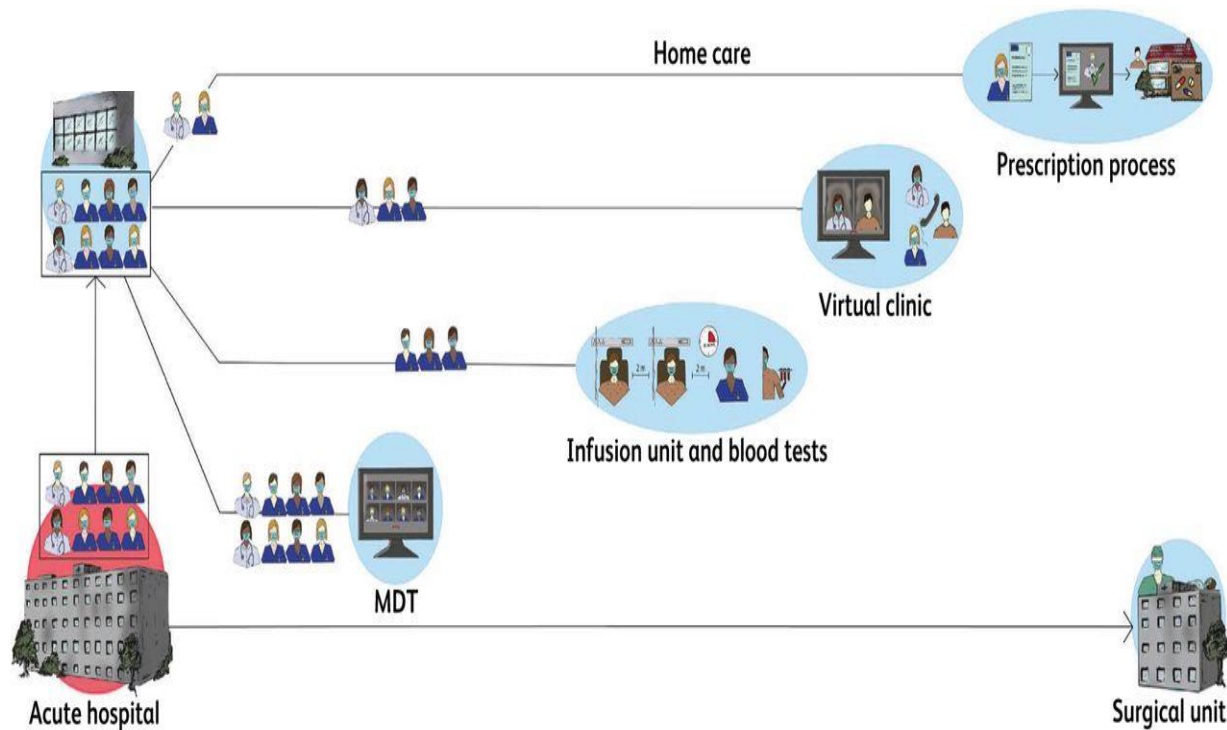
Hull University Teaching Hospitals ,Hull

Setting ...

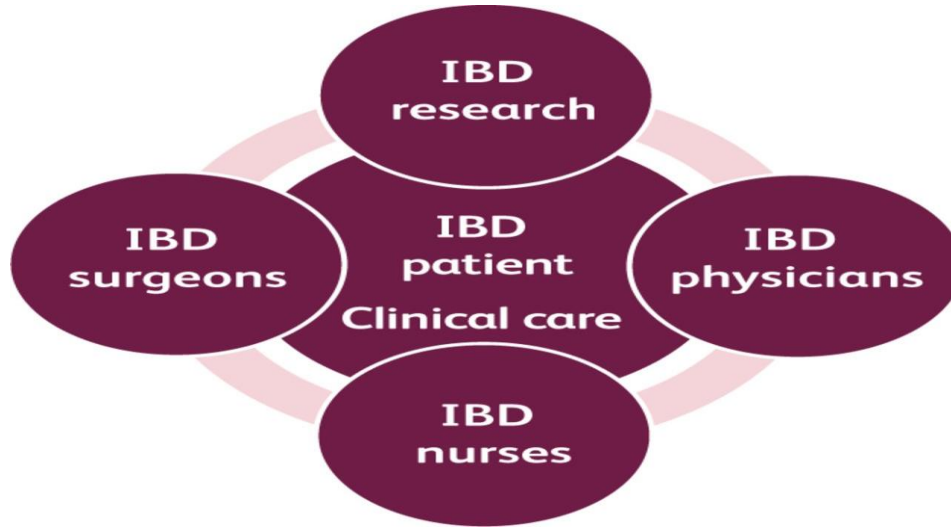


- **Hospital catchment**
 - Primary= 610,000
 - Tertiary = 1.3 million
- **Mixture of rural and urban population**
- **4520 IBD patients**
- **1384 patients on biologics +/- IMM**
- **Approximately 1200 on IMM alone**
- **31 on small molecules**

Structural configuration of IBD Hull



Integrated IBD unit





Problem ...

- Timely & need directed access to expert advise and care

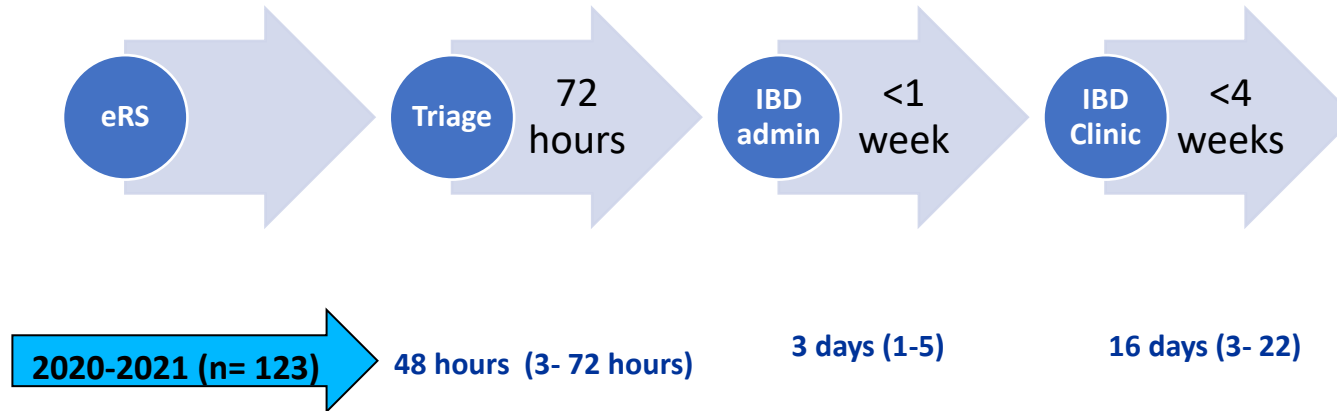
Patient access to IBDhull



- **New referrals**
 - eRS
 - eAdvise & Guidance
 - Tertiary referral
- **Follow ups**
 - Video consult
 - Telephone consult
 - F2F review
- **Flare management**
 - E-mail consult
 - PKB contact
 - Telephone helpline
 - Rapid access clinic



New referrals: eRS & eA&G



- % of patients diagnosed IBD on 2WW pathway
 - 2018-2019 = 34%
 - 2019-2020 = 31 %
 - 2020-2021 = 17%

Out patient appointments - uptake of telemedicine



2018 to 2019- 0%
2019 to 2020- 7%
2020 to 2021- 59%



2018 to 2019 – 18%
2019 to 2020 – 10%
2020-2021 – 17%



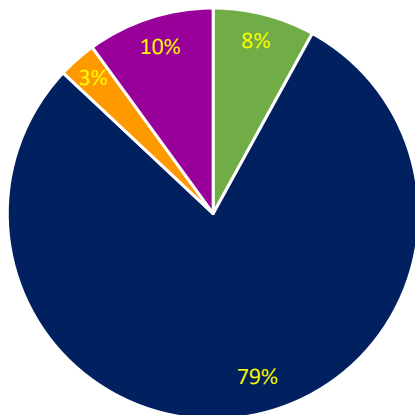
2018 to 2019 – 82%
2019 to 2020- 83%
2020 to 2021 – 24%



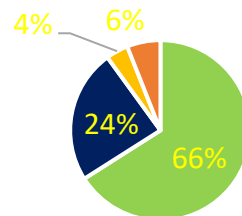
Preference for next appointment



Video clinic (n=148)

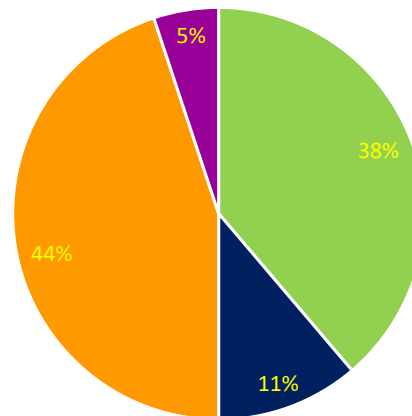


F2F clinic



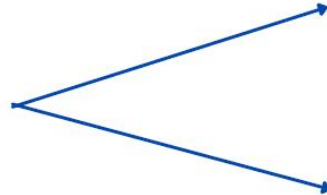
- F2F appt
- Video appt

Telephone clinic (n=43)



Current Flare

Contact Options



IBD HOME



With IBD Home

- Home calprotectin testing for flares and follow ups
- Instant updates on symptoms
- PROMs
- Digital therapeutics
- Self help app
- Psychological support

IBD HOME

Benefits



Patient Satisfaction



Economic Impact

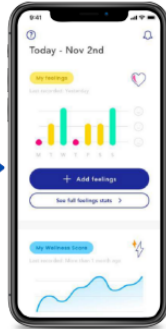


Environmental Impact



Reduced Hospital Admissions

IBD Flare Pathway with IBD Home

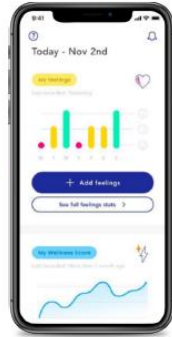


- Home calpro
- Upload results
- Enter symptoms into patient portal



- IBD nurse reviews result
- Check clinical portal
- Prompt treatment

Stable IBD Pathway with IBD Home



- Home calpro
- Upload results
- PROMS
- Medication review
- Surveillance



- IBD nurse reviews results
- Check clinical portal



CLINIC

Face-to-face clinic



Virtual tel/ video
clinic



IBDHull in 2021-2022

- **IBD Home[®]**
 - Patient initiated access and supported management
 - Self help modules /app
 - Digital IBD passport
 - Digital therapeutics
 - Live chat function
- **Data analysis**
 - Hospitalizations
 - Economic impact
 - Environmental impact
 - Patient satisfaction



Thank you for the attention