VII Jornada EN Cáncer DE Mama Hereditario

Experience in non-in-person visits and mainstreaming models in hereditary cancer in Spanish population

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Organizado por:

GEicam investigación en cáncer de mama
www.geicam.org

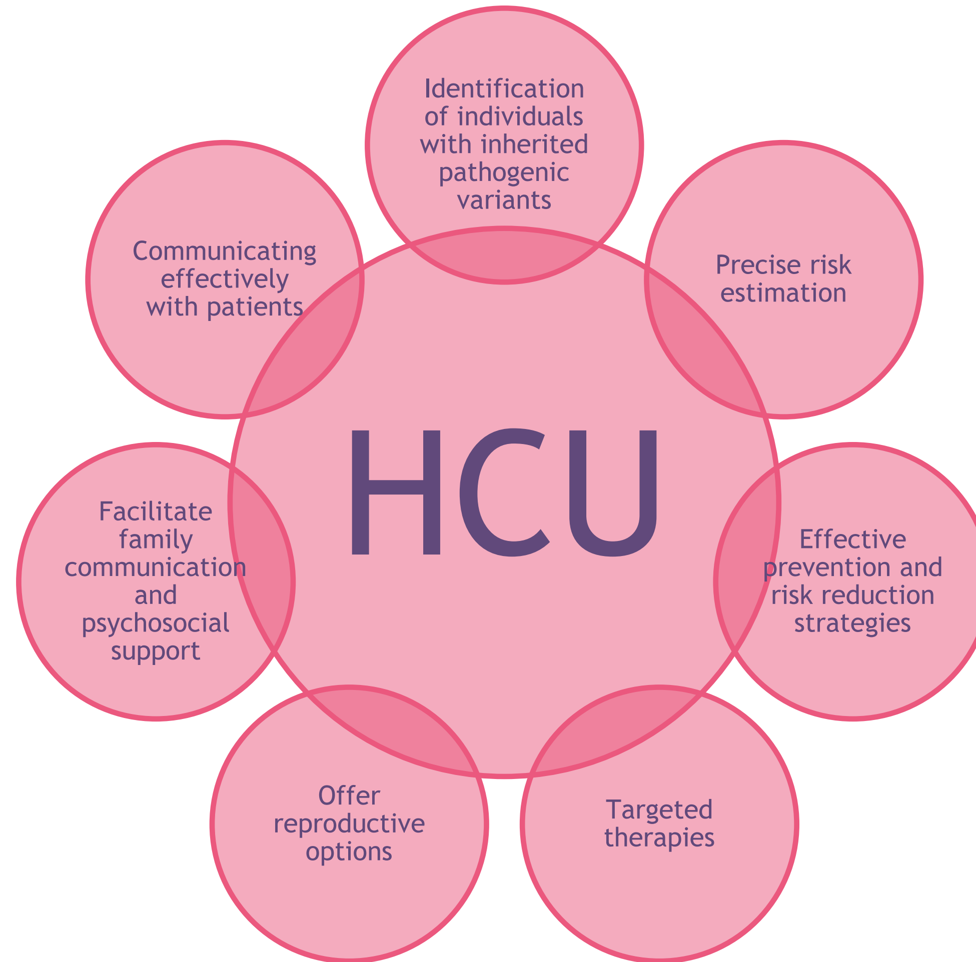
SOLTI INNOVATIVE BREAST CANCER RESEARCH
www.gruposolti.org

Sección SEOM Cáncer Familiar y Hereditario
www.seom.org

Disclosure Information

- Nothing to disclose

Aims (and challenges) of hereditary cancer units (HCU)



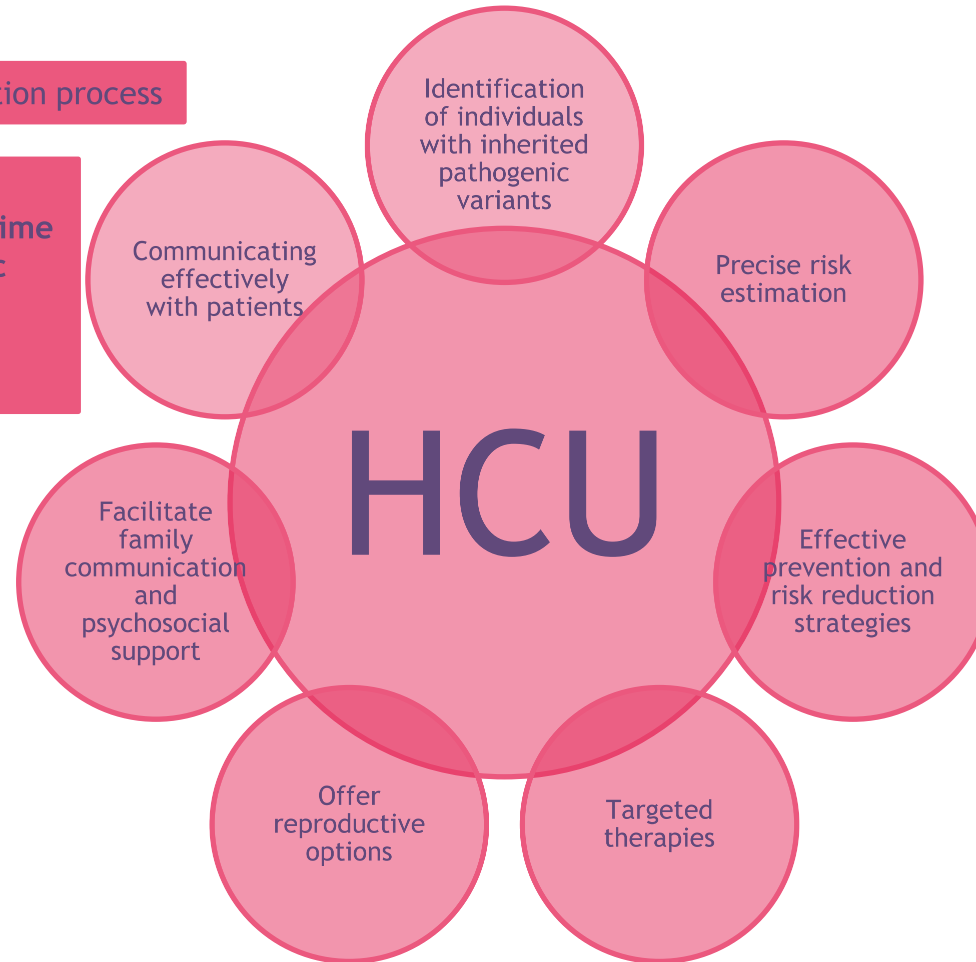
Aims (and challenges) of hereditary cancer units (HCU)

Adapting the comunication process

Adapting the communication approach/provide a faster turanaround time to satisfy actionability for therapeutic indications:

-non-in-person visits

-mainstreaming delivery model



Outline

- Non-in-person visits: ARPA study
  - Before pandemics
  - Impact of COVID-19 lockdown
  - Differences between telephone and video-conference
  - Predictors of acceptance
  - Health care providers preferences
- Mainstreaming genetic testing: Vall d'Hebron experience

Catalan Oncology Network study – ARPA cohort

- Multicentric prospective study
- Participants undergoing cancer genetic testing in HCU

T0
1 week after in-person pre-test visit

Patients (N=578)
Between Feb '18 - Apr '19
- NEOFFI and CWS
- **Reported acceptance of non-in-person pre-test visit**

T1
1 week after in-person result disclosure visit

Patients (N=578)
Between Feb '18 - Apr '19
- MICRA scale
- **Reported acceptance of non-in-person results disclosure visit**

T2
During the COVID-19 lockdown

Patients (N=439)
On April'20
- **Reported acceptance of non-in-person visits after the lockdown**

Health care professionals
N=(106)
On May'20
- **Previous experiences with non-in-person visits**
- **Preferences for type of visits**

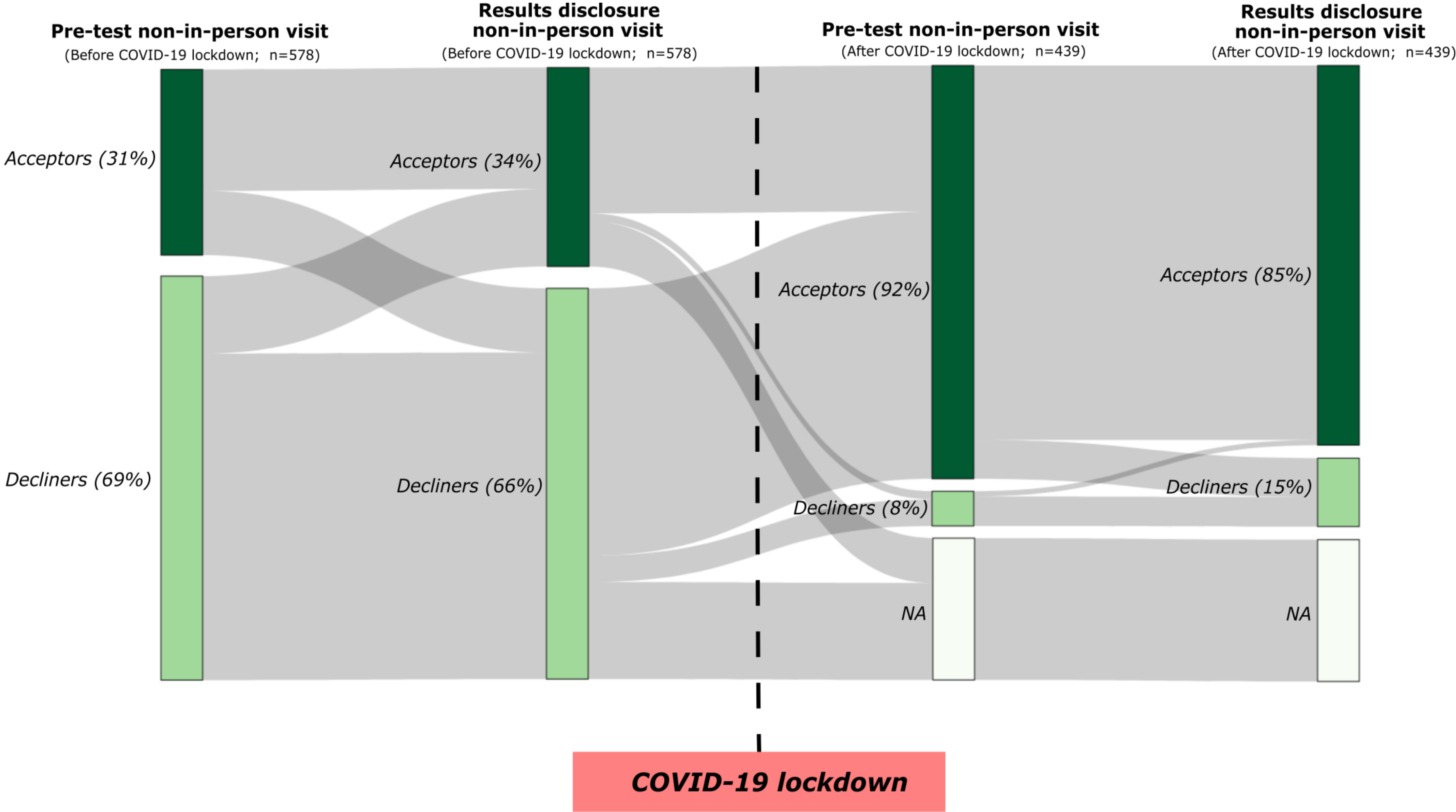
Acceptance of non-in-person visits before the pandemics

Before COVID-19 pandemic

	Pre-test non-in-person visits n (%)	Results disclosure non-in-person visits n (%)
Acceptors	182 (31.5)	195 (33.7)
Decliners	396 (68.5)	383 (66.3)

In our population, most patients were reluctant to non-in-person visits

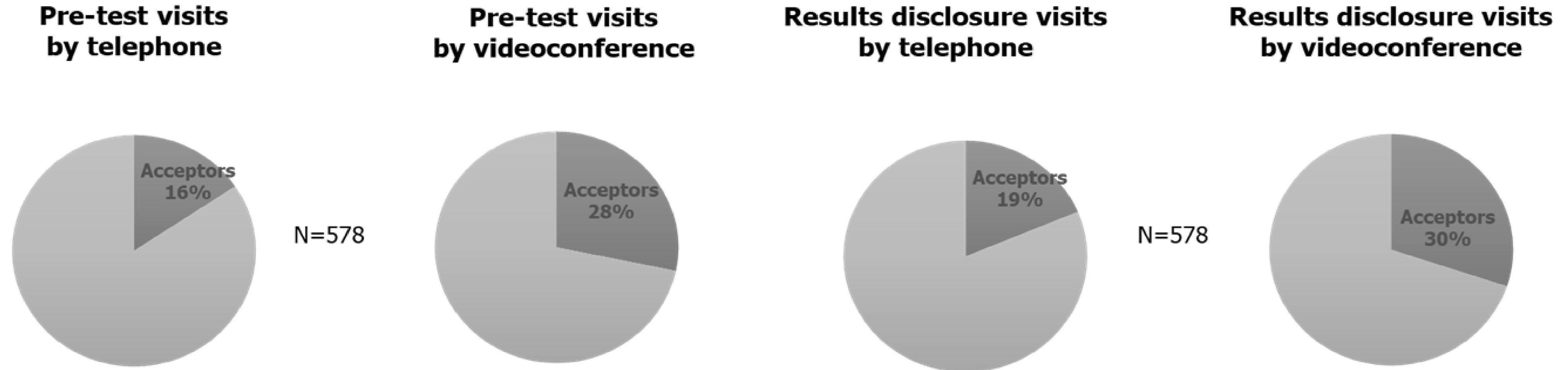
Impact of COVID-19 lockdown



López-Fernández, et al (2021) GiM

Diferences between Telephone and videoconference

Before COVID-19 pandemic



- Videoconference-based visits were more accepted than the telephone-based
- Non-in-person result disclosure visits were slightly more accepted than pre-test visits

What makes people more likely to accept non-in-person visits?

Before COVID-19 pandemic

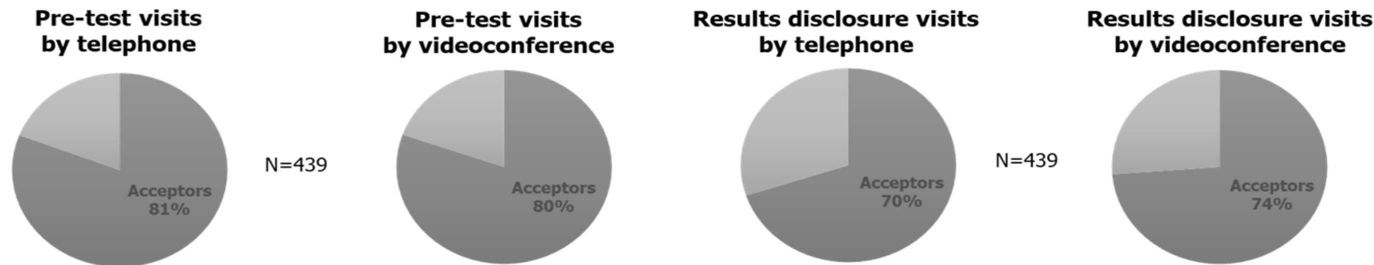
	Pre-test visits			Results disclosure visits		
	Predictor of acceptance	OR	p-value	Predictor of acceptance	OR	p-value
Telephone	Age (10Y increment)	0.79 (0.65 - 0.96)	0.02	Age (10Y increment)	0.78 (0.65-0.92)	0.004
				Type of genetic (panel vs direct gene testing)	0.60 (0.37-0.96)	0.04
				Type of result (positive vs negative)	0.52 (0.29-0.91)	0.03
				Conscientiousness group (low vs high)	2.87 (1.55-5.64)	0.001
				Level uncertainty derived from genetic testing	0.93 (0.88-0.97)	0.002
Videoconference	Age (10Y increment)	0.73 (0.62 - 0.85)	<0.001	Age (10Y increment)	0.75 (0.65 - 0.87)	<0.001
	Education level (more than secondary vs up to secondary)	1.61 (1 - 2.62)	0.05	Level of uncertainty derived from genetic testing	0.96 (0.92-0.99)	0.04
	Neuroticism group (low vs high)	1.72 (1.06-2.79)	0.03			

Results from the multivariate analysis including all relevant variables. López-Fernández, et al (2021) GiM

What makes people more likely to accept non-in-person visits?

During COVID-19 pandemic lockdown

- Acceptance rate during the pandemic lockdown were high in all scenarios

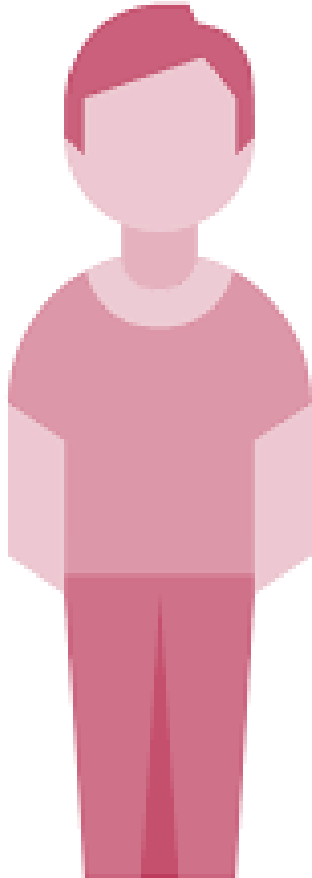


- No significant clinical, genetic or psychological predictors were found in the multivariate analysis ($p>0.05$)
- Psychological impact from the lockdown arose as a new determining variable
- Levels of acceptance are expected to be similar than those obtained before the pandemic (next steps)

What makes people more likely to accept non-in-person visits?

*Individuals who are **LESS** likely to accept **PRE-TEST** non-in-person visit*

Psychological
High level of neuroticism

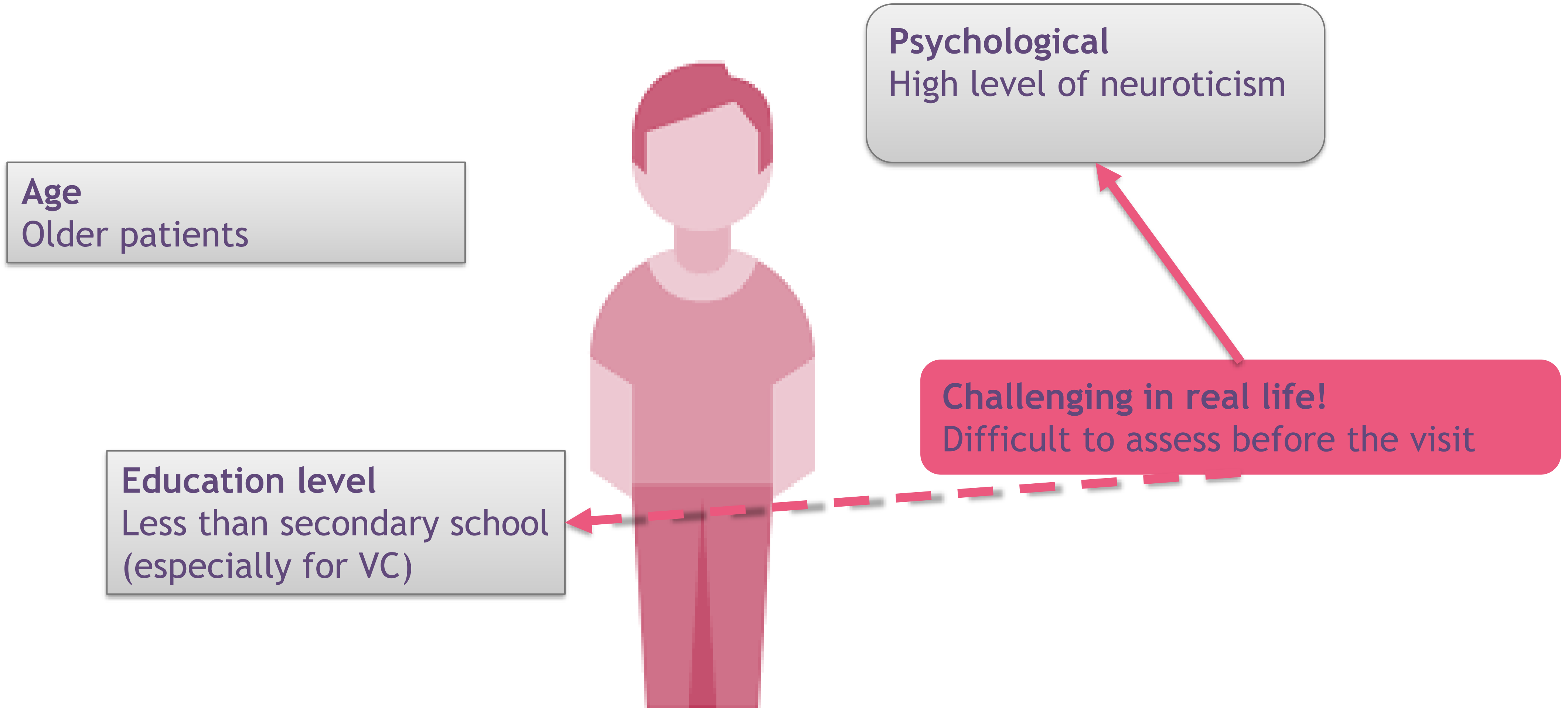


Age
Older patients

Education level
Less than secondary school
(especially for VC)

What makes people more likely to accept non-in-person visits?

*Individuals who are **LESS** likely to accept **PRE-TEST** non-in-person visit*

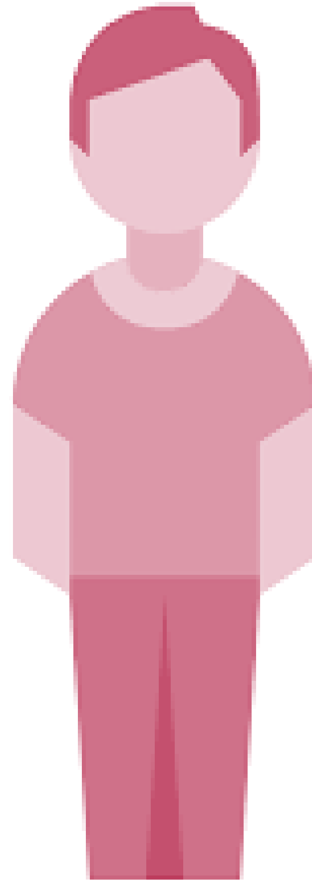


What makes people more likely to accept non-in-person visits?

*Individuals who are **LESS** likely to accept **RESULT DISCLOSURE** non-in-person visit*

Age
Older patients

Psychological
- Results that implies higher uncertainty
- High conscientious group



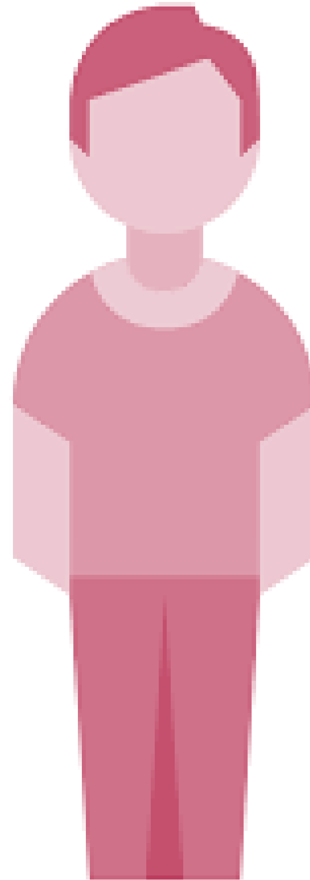
Genetic testing
- Panel testing
- Positive result

What makes people more likely to accept non-in-person visits?

*Individuals who are **LESS** likely to accept **RESULT DISCLOSURE** non-in-person visit*

Age
Older patients

Genetic testing
- Panel testing
- Positive result



Psychological
- Results that implies higher uncertainty
- High conscientiousness level

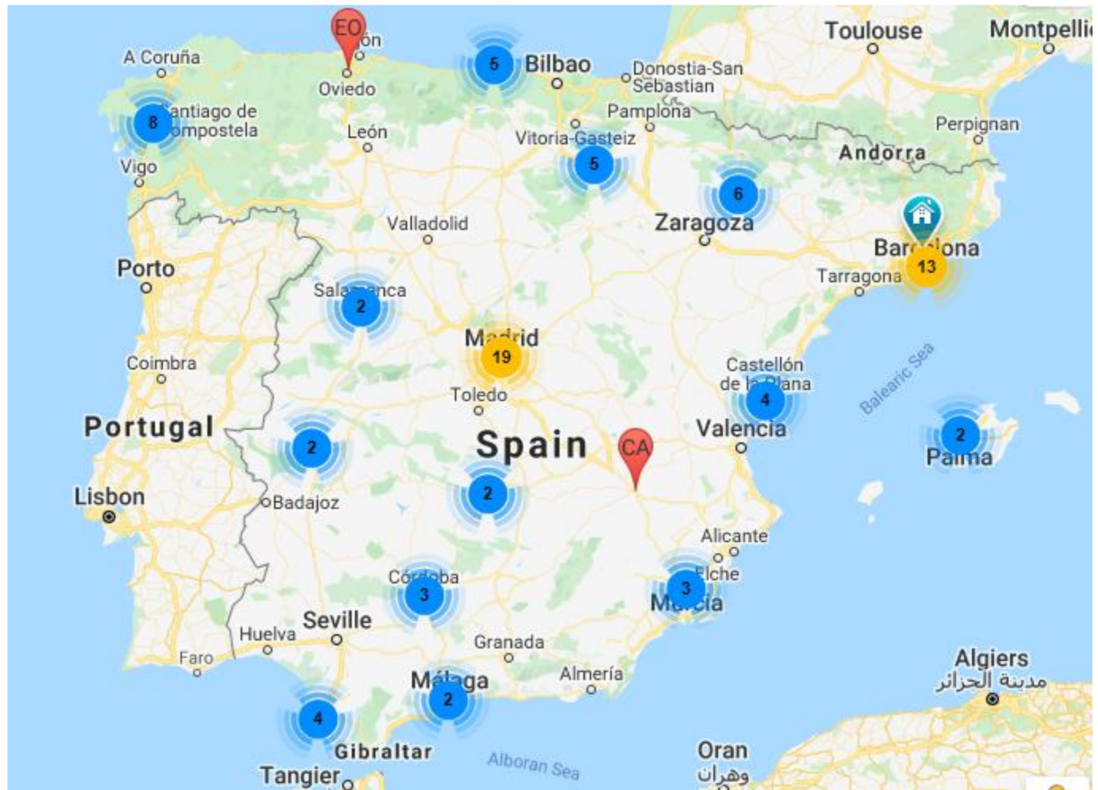
How to identify individuals with high consciousnesses level?
- They have the desire to do a task well
- They are diligent and tend to be efficient and organized
- Ample time is spent planning and preparing
- Ability to prioritize important tasks

What make people more prone to accept non-in-person visits?

Role of age in non-in-person visits acceptance

	Pre-test telephone visit			Pre-test videoconference visit			Results telephone visit			Results videoconference visit		
	% reported acceptance	OR 95% CI	P value	% reported acceptance	OR 95% CI	P value	% reported acceptance	OR 95% CI	P value	% reported acceptance	OR 95% CI	P value
Before COVID-19												
Age group												
<30	15.8	Ref.		38.6	Ref.		24.6	Ref.		36.8	Ref.	
31-40	23.5	1.63 (0.73-3.94)		39.1	1.02 (0.53- 1.98)		28.7	1.24 (0.61-2.61)		39.1	1.1 (0.57- 2.14)	
41-50	16.4	1.04 (0.48-2.49)	0.04	31.0	0.71 (0.38-1.35)	<0.001	15.8	0.58 (0.28-1.22)	0.007	31.6	0.79 (0.43- 1.5)	<0.001
51-60	13.8	0.86 (0.36-2.13)		21.9	0.44 (0.23-0.88)		15.5	0.56 (0.26- 1.24)		26.0	0.6 (0.31-1.19)	
61-70	10.1	0.6 (0.21-1.68)		12.7	0.23 (0.09-0.53)		17.7	0.66 (0.28- 1.53)		22.8	0.51 (0.23-1.1)	
>70	3.1	0.17 (0.01-0.98)		18.7	0.36 (0.12- 0.99)		3.0	0.09 (0.01- 0.52)		12.1	0.24 (0.07-0.7)	
After COVID-19												
Age group												
<30	72.1	Ref.		83.7	Ref.		60.5	Ref.		79.1	Ref.	
31-40	85.4	2.27 (0.94-5.46)		90.6	1.87 (0.62-5.43)		67.7	1.37 (0.65-2.89)		79.2	1 (0.4-2.39)	
41-50	79.7	1.52 (0.68-3.27)	0.26	83.1	0.96 (0.36-2.3)	<0.001	69.6	1.5 (0.73-3.01)	0.49	77.7	0.92 (0.38-2.05)	<0.001
51-60	84.4	2.1 (0.87-5.07)		76.7	0.64 (0.23-1.58)		76.7	2.15 (0.98-4.72)		70	0.62 (0.25-1.42)	
61-70	73.3	1.07 (0.41-2.74)		60	0.29 (0.1-0.77)		68.9	1.45 (0.6-3.53)		57.8	0.36 (0.14-0.91)	
>70	88.2	2.9 (0.67-20.2)		64.7	0.35 (0.09-1.31)		76.5	2.12 (0.84-2.87)		58.8	0.38 (0.11-1.29)	

Health-care providers preferences



seom.org

- 85 hereditary cancer units in Spain
- Survey sent to the members of the Hereditary Cancer Section from the SEOM, CAR-AEG (Clinicas alto riesgo- Asociación Española de Gastroenterología), members of SEAGen
- questions about previous experiences with non-in-person visits and preferences about type of visit

Health-care providers preferences

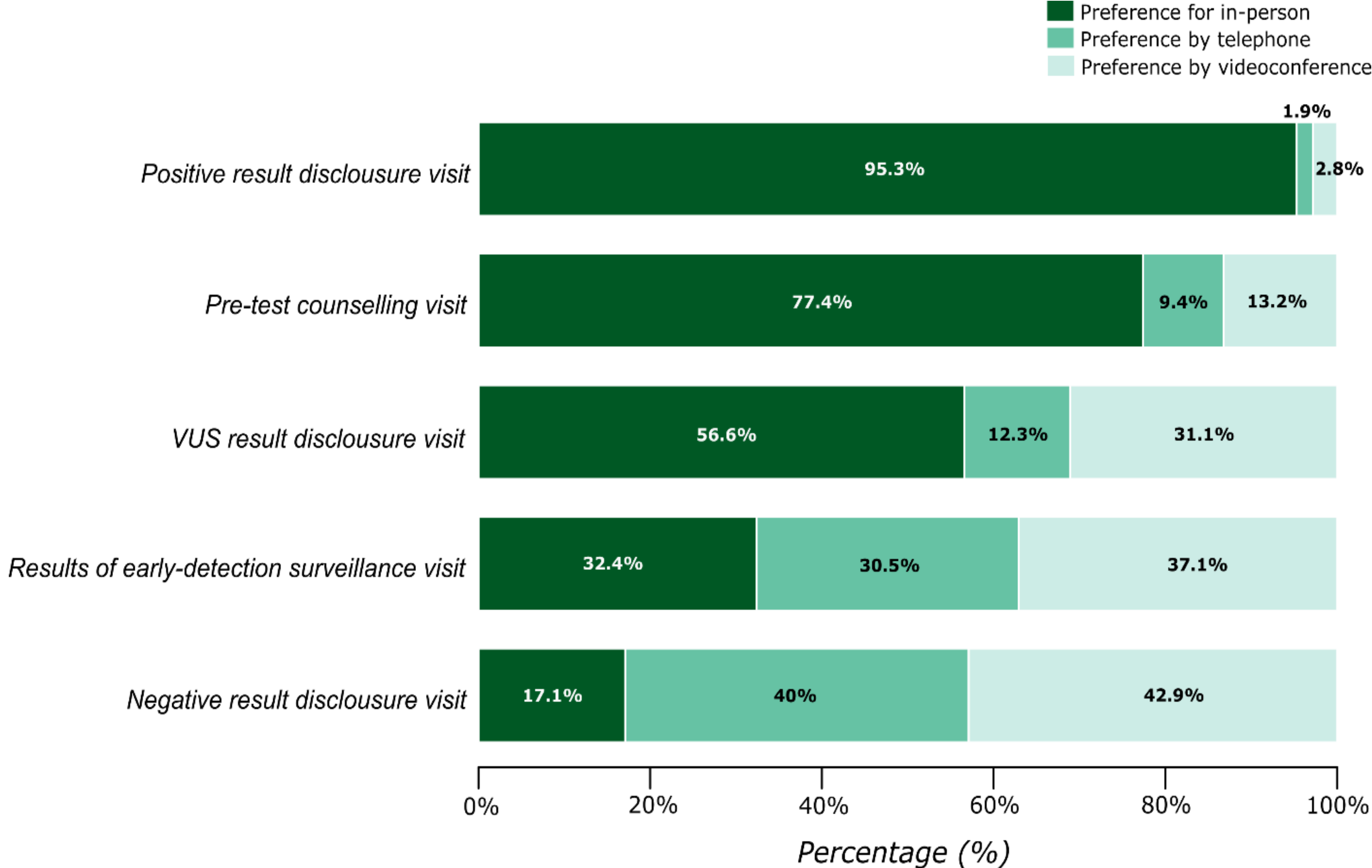
- 106 health care providers:
  - 72% physician
  - 20% genetic counselor
  - 8% nurse
- Availability of VC tools in clinics before the pandemic:
  - 67% No

Health-care providers preferences

Experiences before the COVID-19 pandemic

Clinical scenario	Used before COVID-19 pandemic			
	Visits by telephone		Visits by videoconference	
	n	%	n	%
Pre-test visits	22	20.8	2	1.9
Results disclosure visit	42	39.6	3	2.9

Health-care providers preferences



Mainstreaming model

Cancer Genetics Service Delivery Models

Table 1 Defined service delivery models

Defined service delivery models
Traditional face-to-face pre-test and post-test counseling (Traditional)
Face-to-face pre-test without face-to-face post-test counseling (Face-to-face Pre-test Only)
Telephonic pre-test with or without post-test counseling (Telephonic)
Videoconferencing/telemedicine pre-test with or without post-test counseling (Video)
Post-test counseling only- all: Clients are referred to genetic counselor after genetic testing for all/most test results. Pre-test counseling provided by other health care provider (Post-test All)
Post-test counseling- complex: Clients are referred to genetic counselor after genetic testing for complex cases only. Routine results managed by ordering provider (Post-test Complex)
Consultant model: Genetic counselor helps individual provider with risk assessment, provider provides genetic counseling/direct patient care for most cases (Consultant)
Collaborative model: Genetic counselor helps health care provider with risk assessment, provider manages low risk cases and refers high/moderate risk to genetic counselor (Collaborative)
Group genetic counseling: Genetic counselor provides counseling to groups of clients with or without follow up individual sessions (Group)
Public health model: Counselor educates a community of providers (within a practice, hospital, etc.) through group education with expectation they will manage routine and refer complex cases (Public Health)

Non-in-person genetic counselling

Mainstreaming delivery model

Mainstreaming model

SCIENTIFIC REPORTS
naturereseach

Oncologist-led *BRCA* 'mainstreaming' in the ovarian cancer clinic: A study of 255 patients and its impact on their management

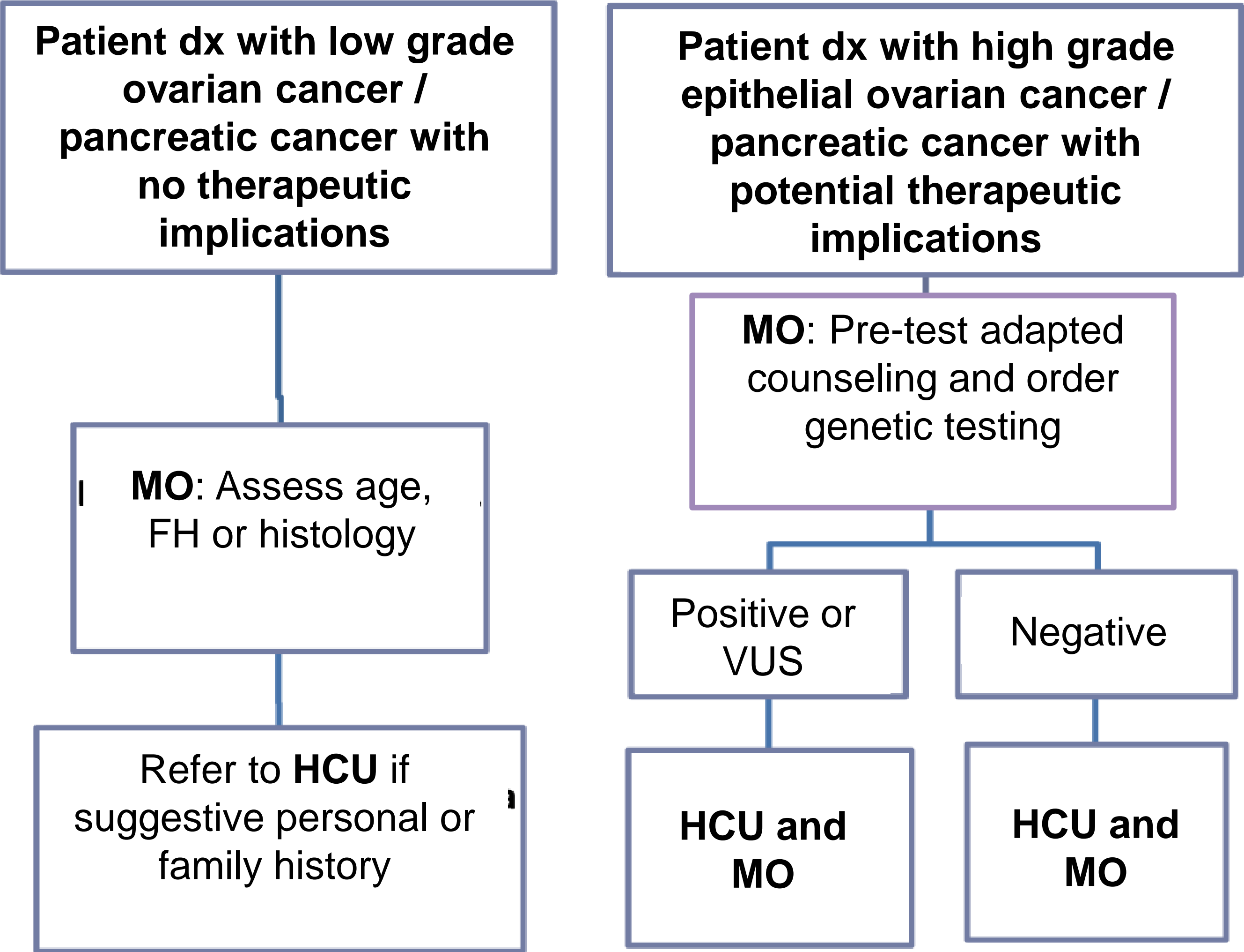
Megan Rumford[1*], Mark Lythgoe[2], Iain McNeish[3], Hani Gabra[3], Laura Tookman[2], Nazneen Rahman[4,5], Angela George[6,7] & Jonathan Krell[3,7]

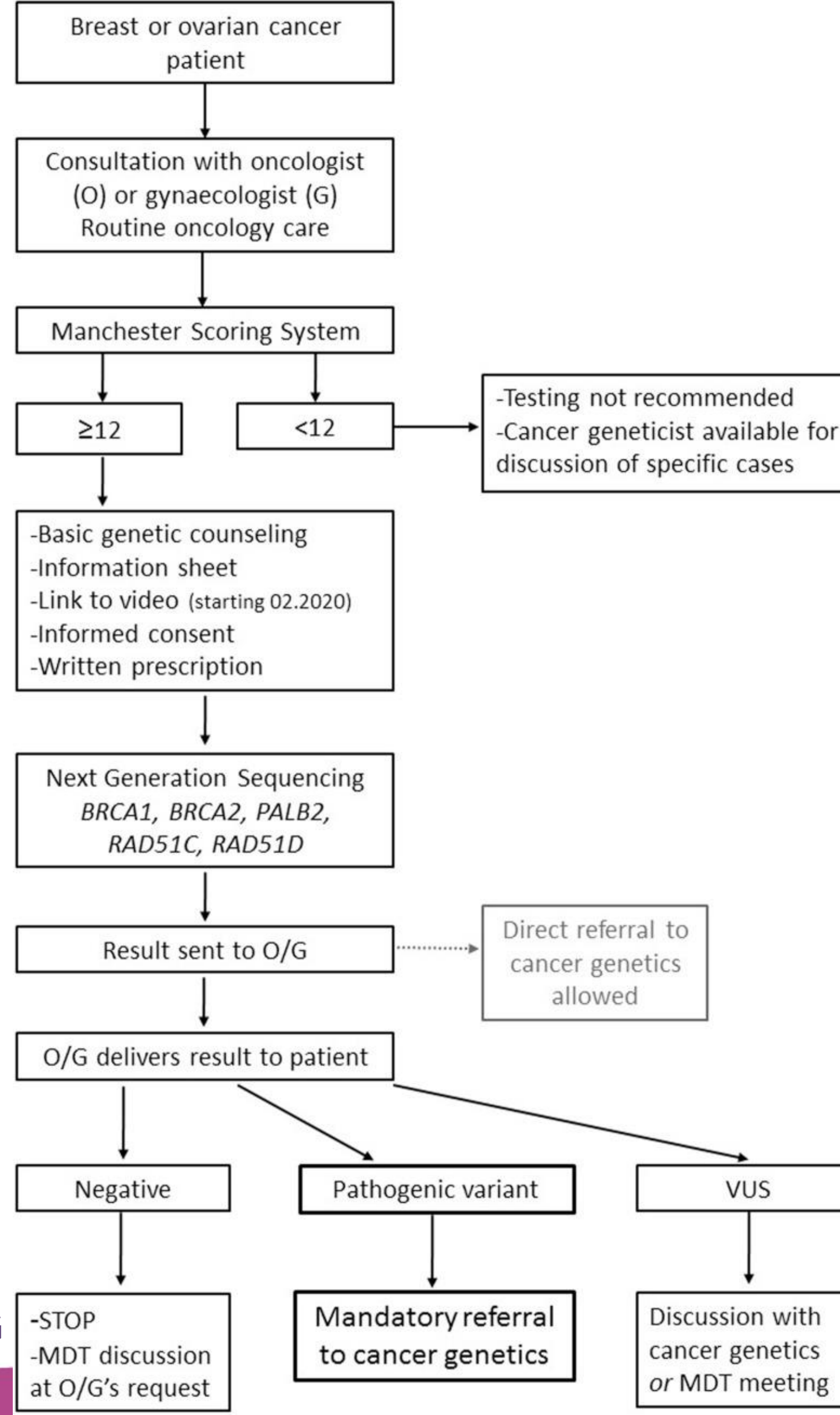
- N=255 ovarian cancer patients
- *BRCA* testing uptake from 14% to 95%
- Mean turnaround time from 148 days to 21 days
- 13% (34) BRCAm patients
- 9 received PARPi off trial, 3 entered a clinical trial, 5 receiving platinum- based chemo with a plan to receive PARPi maintenance

- Mainly implemented in the ovarian cancer setting (pancreatic and breast are currently being implemented)
- Similar rates of PV detection in OC
- Facilitate the therapeutic discussion of the germline test
- Uptake of cascade testing was significantly lower compared to the traditional approach (when no genetic counseling)

Mainstreaming model

Vall d'Hebron Universitary Hospital experience





Contents lists available at ScienceDirect

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journal homepage: www.elsevier.com/locate/ejmg

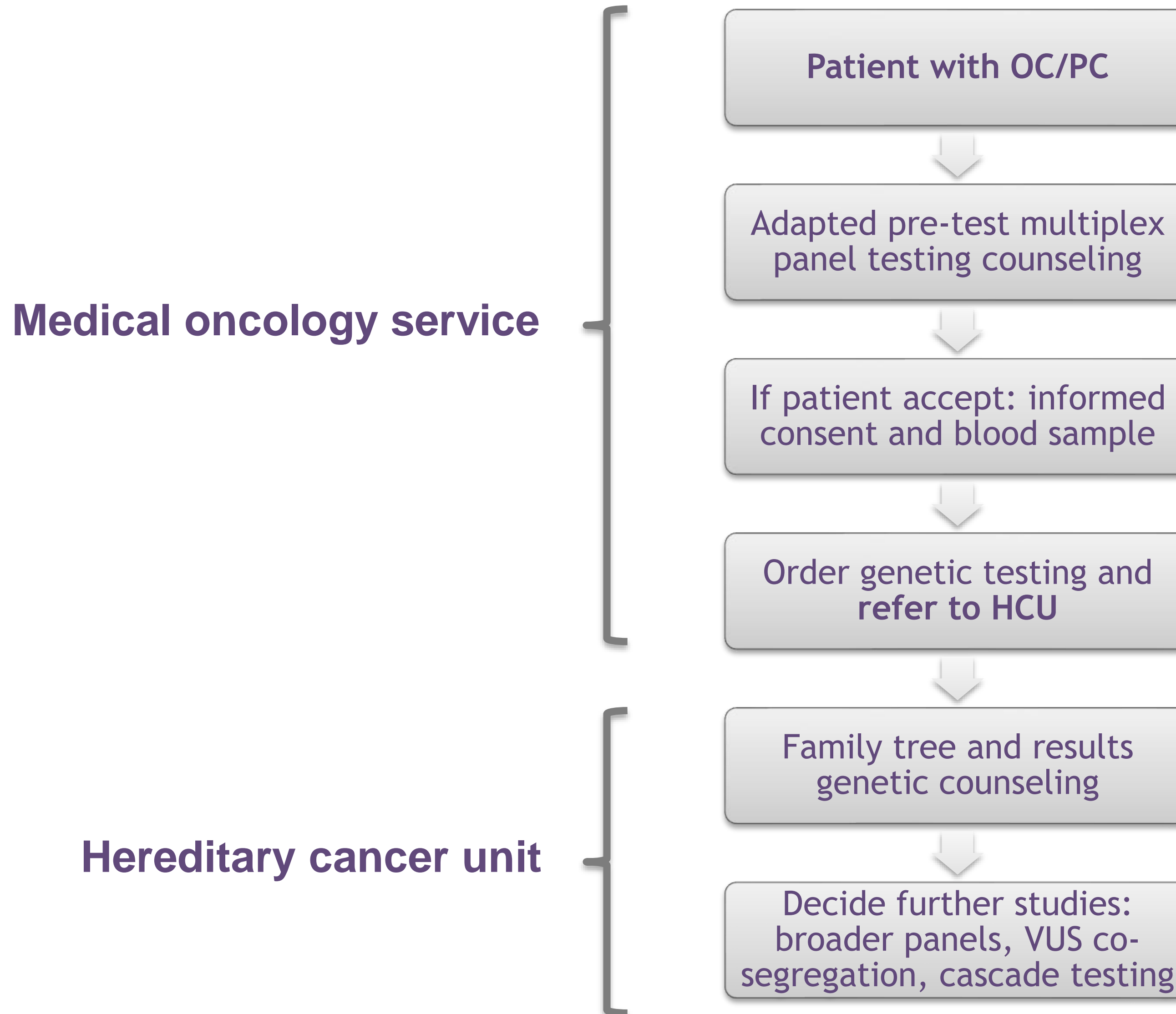
Utility of a mainstreamed genetic testing pathway in breast and ovarian cancer patients during the COVID-19 pandemic

Patrick R. Benusiglio [a,b,c,*], Clément Korenbaum [d], Roseline Vibert [a], Joël Ezenfis [e], Sophie Geoffron [f], Charlotte Paul [f], Sandrine Richard [d], Veronique Byrde [c], Manon Lejeune [a], Erell Guillerm [a], Noemie Basset [a], Jean-Pierre Lotz [d], Nathalie Chabbert-Buffet [c], Joseph Gligorov [d], Florence Coulet [a,b]

Benusiglio, et al (2020) EJMG

Mainstreaming model

Vall d'Hebron Universitary Hospital experience



Mainstreaming model

Vall d'Hebron Universitary Hospital experience

	Ovarian cancer MS	Pancreatic MS
Date of MS implementation	December 2019	February 2021
Genetic tests ordered by medical oncologist	35 ovarian cancer panel testing	12 pancreatic cancer panel testing
Patients with PV	7 PV (2 BRCA2, 2 BRCA1, 1 MSH6, 2 RAD51C genes)	None (6 pending results)
Patients with broader genetic testing once assessed by HCU	2	NA

Mainstreaming model

Medical oncologist perspective

- Streamline the medical decision process
- They feel confortable when discussing this topic with patients
- They spent up to 5 minutes of the visit to the germline test
- They ask for a web page for patients with information about hereditary cancer and panel testing (they do not always use the sheet)

Mainstreaming model

Consideratinos when implementing mainstremaing model to the clinics

- Multidisciplinary meeting (medical oncologists, genetic counsellors, clinical geneticist, laboratory geneticist)
- Discuss the informed consent and the essential information to be approached in the consultation
- Provide helpful material for patients (i.e. sheet)
- Decide the model of results delivery
  - Refer all results to HCU
  - Refer only complex results to HCU

Take home messages

- Patients’ acceptance of non-in-person visits were higher during the COVID-19 lockdown
- Before the pandemic, videoconference visits were more accepted than telephone visits
- Younger age was a predictor of acceptance to non-in-person visits in all scenarios
- Personality traits (neuroticism and conscientiousness) influence the decision-making process of accepting non-in-person visits
- Health care providers prefer in-person visits for complex scenarios (pre-test and positive results) and non-in-person for negative results
- Mainstreaming delivery model allows a rapid medical-decision making, and is similar to traditional approach especially when supervised by hereditary cancer clinics

THANKS!

- Hereditary Cancer Section (Dra. Ana Beatriz Sanchez) - SEOM
- High Risk CCR units - AEG
- Cancer Genetic Counselling Group - SEAGen
- Genetic counsellors from the Catalan Oncology Network
- Ovarian and pancreatic medical oncologists of the Vall d'Hebron Universtary Hospital
- UARPC team (HVH-VHIO)