

A QUEL AGE COMMENCER LE DEPISTAGE DU CANCER COLORECTAL ?

Journée de Gastroentérologie de l'Hôpital Cochin
Samedi 13 mai 2023



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D'ENDOSCOPIE ET D'ONCOLOGIE DIGESTIVE

AP-HP. Centre-Université Paris Cité
Hôpital Cochin



gastrocochin.com

CHIFFRES du CCR

3^{ème} cancer le plus fréquent

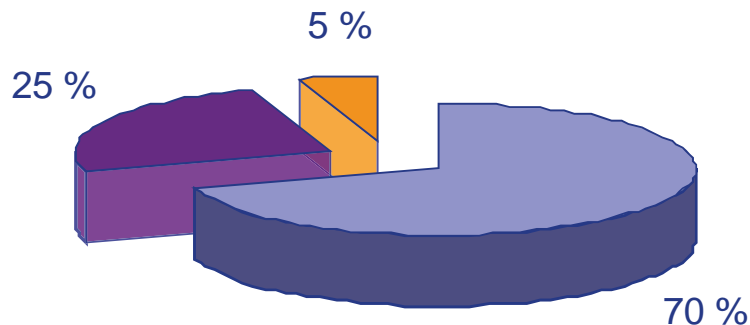
- Après sein et prostate
- 44 000 nouveaux cas / an en France

2^{ème} cancer en terme de mortalité :

- 63% de survie à 5 ans, 52% de survie à 10 ans
- 18 000 décès / an



REPARTITION CCR



- Cancer colorectal sporadique
- Cancer colorectal lié à des antécédents familiaux
- Cancer colorectal lié à une maladie génétique

DEPISTAGE SELON LE NIVEAU DE RISQUE de CCR selon la HAS

2017

Dépistage selon le niveau de risque de cancer colorectal (CCR)

	MOYEN	ÉLEVÉ	TRES ÉLEVÉ
Personnes concernées	<p>Population générale</p> <ul style="list-style-type: none"> • 50 à 74 ans. • asymptomatique. 	<p>Antécédents personnels de maladie inflammatoire chronique intestinale (MICI)</p> <ul style="list-style-type: none"> • Maladie de Crohn colique. • Rectocolite hémorragique. <p>Antécédents d'adénome* ou de CCR</p> <ul style="list-style-type: none"> • Personnel. • Familial (1^{er} degré). 	<p>Prédisposition héréditaire</p> <ul style="list-style-type: none"> • Polyposes adénomateuses familiales (PAF). • Cancer colorectal héréditaire non polyposique (syndrome de Lynch).
Stratégie de dépistage	<p>Dépistage organisé</p> <ul style="list-style-type: none"> • Test de recherche de sang occulte dans les selles (tous les 2 ans). 	<p>Dépistage individuel</p> <ul style="list-style-type: none"> • Consultation gastro-entérologique/ suivi spécialisé. • Coloscopie*/Chromoendoscopie**. 	<p>Dépistage individuel</p> <ul style="list-style-type: none"> • Consultation oncogénétique (recherche mutation). • Consultation gastro-entérologique. • Chromoendoscopie**.
	FIT / 2 ans	Coloscopie	Coloscopie

PATIENTS A RISQUE ÉLEVÉ de CCR

Hors MICI et ATCD personnels



**Antécédent
familial de CCR
au 1^{er} degré**

**Antécédent
familial
d'adénome
avancé (> 1 cm)
au 1^{er} degré**

Quel que soit l'âge

PATIENTS A RISQUE ÉLEVÉ de CCR

Prévention du cancer colorectal par coloscopie, en dehors du dépistage en population. Consensus et position de la SFED

The Prevention of Colorectal Cancer via Colonoscopy, beyond Population Screening.
Consensus and Position of SFED

Acta Endosc. (2016) 46:68-73



ATCD FAMILIAL CCR

Quel que soit l'âge de survenue

- ATCD familial au 1^{er} degré de CCR
=> RR CCR * 2
- ATCD familiaux multiples CCR 1^{er} degré
=> RR CCR * 4
- ATCD familiaux multiples CCR 2nd et 3^{ème} degré
=> RR CCR * 1,5

ATCD FAMILIAL 1^{er} degré d'ADÉNOME

Y compris non avancé

Quel que soit l'âge de survenue

- => RR CCR * 2
- Augmente avec précocité cas index

FdR INDIVIDUELS

Risque CCR / adénomes avancés majoré par facteurs environnementaux et/ou co-morbidités.

=> **Reco utilisation de scores :**

Ex : Score de Kaminski :
Age, Sexe, Tabac, IMC, ATCD Fam CCR

Tableau 4 Score de Kaminski.

Score total	Risque d'adénome avancé et/ou CCR
Score 0 à 2	< 5 %
Score 3-4	5 à 10 %
Score ≥ 5	10 à 20 %

PATIENTS A RISQUE ÉLEVÉ de CCR

Hors MICI et ATCD personnel d'adénome



2017



2016

Population cible

ATCD Familial au 1^{er} degré de :

- CCR
- Adénome avancé

(Quel que soit l'âge)

*** ATCD Familial de :**

- CCR au 1^{er} degré
- CCR multiple au 2nd /3^{ème} degré
- Adénome quel que soit le degré d'avancement

(Quel que soit l'âge)

*** Facteurs individuels à risque**
(Score de Kaminski ≥ 5)

Age retenu

Coloscopie à 45 ans
ou 10 ans avant le cas index

Coloscopie à 50 ans
ou 5 ans avant le cas index

PATIENTS A RISQUE ÉLEVÉ de CCR

Hors MICI et ATCD personnel d'adénome



2017



2016

Quel âge retenir pour le début du dépistage?

Age retenu

Coloscopie à 45 ans
ou 10 ans avant le cas index

Coloscopie à 50 ans
ou 5 ans avant le cas index

CHIFFRES du CCR

Projection
de l'incidence
et de la mortalité
par cancer en France
métropolitaine
en 2017

Rapport technique

95% de CCR >50 ans

Classe d'âge	Incidence		Mortalité		
	Homme	Femme	Homme	Femme	
[00 ; 14]	6	16	0	0	
[15 ; 49]	1 058	1 325	196	195	
[50 ; 64]	5 605	4 120	1 419	982	
[65 ; 74]	8 126	5 134	2 571	1 479	
[75 ; 84]	6 172	5 465	2 768	2 228	
[85; ++]	3 068	4 777	2 340	3 506	
Total	24 035	+ 20 837	= 44 872	9 294	8 390

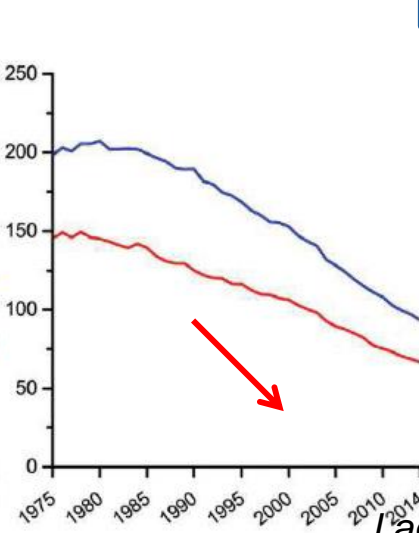
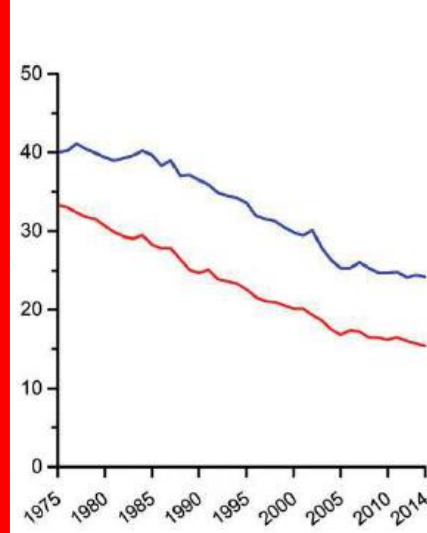
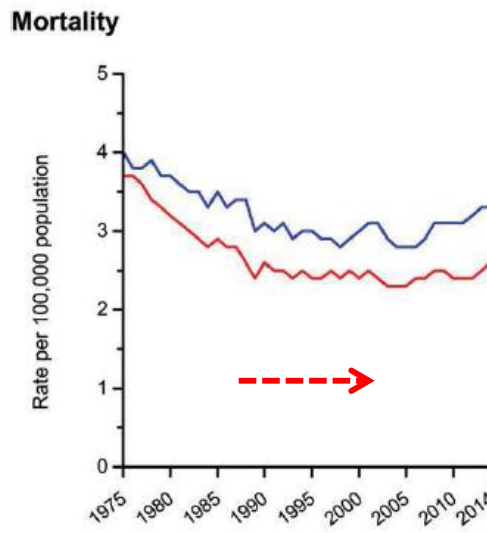
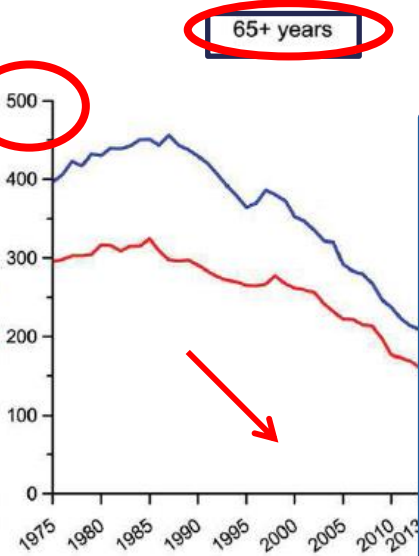
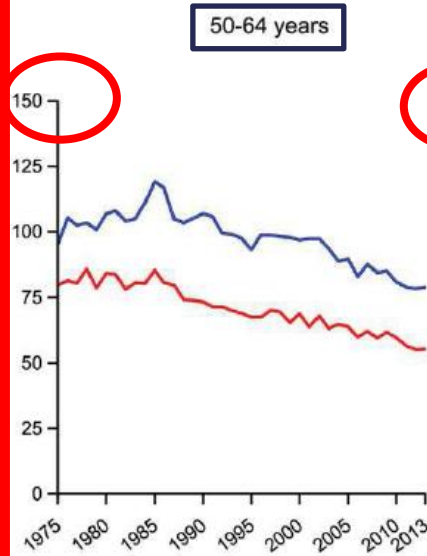
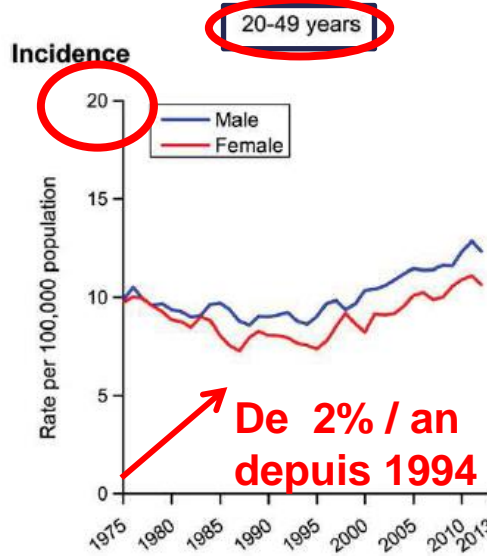
= 42 467

**Nombre nouveaux cas et décès par CCR
par tranche d'âge
France Métropolitaine 2017**

CHIFFRES du CCR

Colorectal Cancer Statistics, 2017

Rebecca L. Siegel, MPH¹; Kimberly D. Miller, MPH²; Stacey A. Fedewa, PhD³; Dennis J. Ahnen, MD⁴; Reinier G. S. Meester, PhD⁵; Afsaneh Barzi, MD, PhD⁶; Ahmedin Jemal, DVM, PhD⁷



Aux USA à ce jour




- 1 CCR / 7 survient < 50 ans
- CCR = 1^{ère} cause de décès par cancer des H < 50 ans

Bailey 2015
Siegel Ca Cancer J Clin 2017
Mauri Molecular Oncology 2019
Ladabaum Gastroenterology 2020

INTERET D'ABAISSE L'AGE DU DÉPISTAGE?

**Patients à
risque
moyen**

The Impact of the Rising Colorectal Cancer Incidence in Young Adults on the Optimal Age to Start Screening: Microsimulation Analysis I to Inform the American Cancer Society Colorectal Cancer Screening Guideline

Elisabeth F. P. Peterse, MSc ¹; Reinier G. S. Meester, PhD ^{1,2}; Rebecca L. Siegel, MPH³; Jennifer C. Chen, MPH⁴; Andrea Dwyer, BS^{5,6}; Dennis J. Ahnen, PhD⁷; Robert A. Smith, PhD ⁸; Ann G. Zauber, PhD⁴; and Iris Lansdorp-Vogelaar, PhD¹

Cancer July 15, 2018

TABLE 1. Screening Strategies Evaluated by the Microsimulation Model

Screening Modality	Age to Start Screening, Years	Age to Stop Screening, Years)	Screening Interval, Years	No. of (Unique) Strategies ^a
No screening				1 (1)
Colonoscopy	40, 45, 50	75, 80, 85	5, 10, 15	27 (20)
Stool-based tests				
Fecal immunochemical test	40, 45, 50	75, 80, 85	1, 2, 3	27 (27)
High-sensitivity guaiac-based FOBT	40, 45, 50	75, 80, 85	1, 2, 3	27 (27)
Multitarget stool DNA test	40, 45, 50	75, 80, 85	1, 3, 5	27 (27)
Flexible sigmoidoscopy	40, 45, 50	75, 80, 85	5, 10	18 (15)
Computed tomographic colonography	40, 45, 50	75, 80, 85	5, 10	18 (15)
Total				145 (132)

Abbreviation: FOBT, fecal occult blood test.

^aThe number of unique strategies excluded the strategies that overlap (eg, colonoscopy every 10 years from ages 50 to 80 years and from ages 50 to 85 years both include colonoscopies at ages 50, 60, 70, and 80 years and therefore are not unique strategies).

Microsimulation Screening Analysis-Colon (MISCAN-Colon) model

INTERET D'ABAISSE L'AGE DU DÉPISTAGE?

Patients à risque moyen

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Flexible sigmoidoscopy				18 (15)
Computed tomographic colonography				18 (15)
Total				145 (132)

Années de vies gagnées
Nb de coloscopies supplémentaires
Effets indésirables

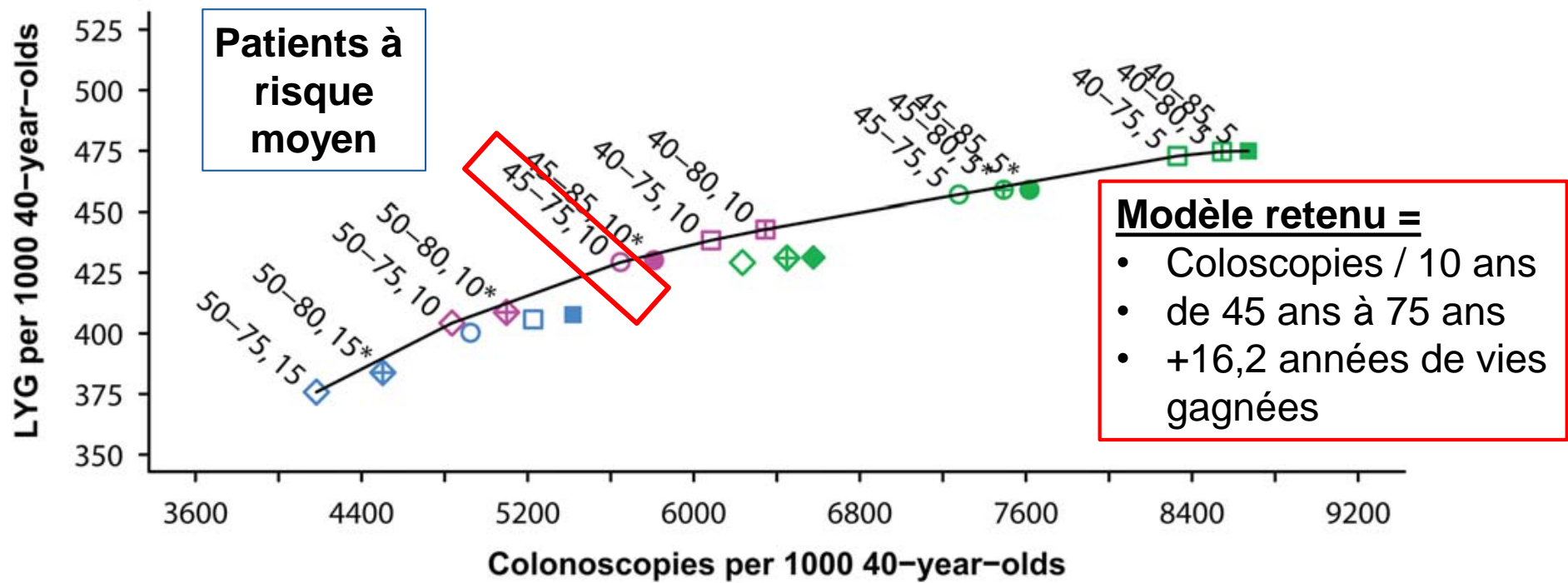
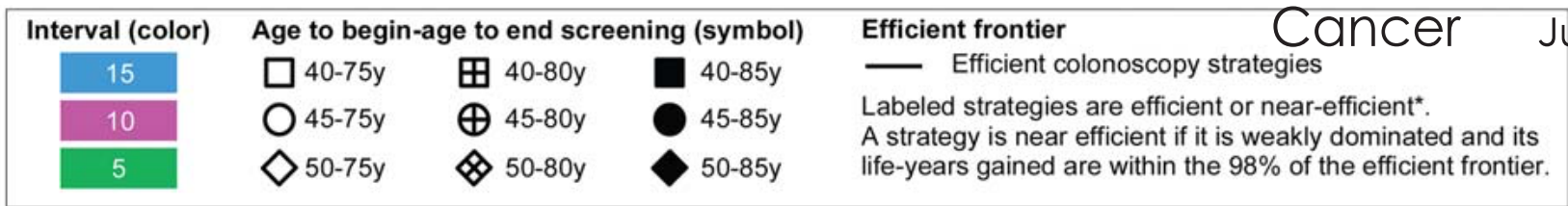
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INTERET D'ABAISSE L'AGE DU DÉPISTAGE?

The Impact of the Rising Colorectal Cancer Incidence in Young Adults on the Optimal Age to Start Screening: Microsimulation Analysis I to Inform the American Cancer Society Colorectal Cancer Screening Guideline

Cancer July 15, 2018



2. Lifetime number of colonoscopies and life-years gained (LYG) for colonoscopy screening strategies.

INTERET D'ABAISSE L'AGE DU DÉPISTAGE?

CLINICAL PRACTICE GUIDELINES

Patients à risque moyen

Updates on Age to Start and Stop Colorectal Cancer Screening: Recommendations From the U.S. Multi-Society Task Force on Colorectal Cancer



Prepared by: Swati G. Patel, MD, MS,^{1,2} Folasade P. May, MD, PhD, MPhil,^{3,4} Joseph C. Anderson, MD,^{5,6} Carol A. Burke, MD,⁷ Jason A. Dominitz, MD, MHS,⁸ Seth A. Gross, MD,⁹ Brian C. Jacobson, MD, MPH,¹⁰ Aasma Shaukat, MD, MPH,¹¹ and Douglas J. Robertson, MD, MPH⁵

Table 3. Life-Years Gained, Additional Colonoscopies Required, and Adverse Events of Screening per 1000 Individuals Screened at Ages 45-75 Compared With Ages 50-75

	Additional life-years gained	CRC prevented	CRC death averted	Additional tests required	Additional adverse events
Colonoscopy every 10 y	16-34	1-4	1-2	Colonoscopy: 756-800	2
Annual FIT	17-33	1-4	1	FIT: 3387-3520 Colonoscopy: 175-205	1
Triennial sDNA-FIT	16-31	1-4	1	sDNA-FIT: 1166-1201 Colonoscopy: 177-196	<1
Flexible sigmoidoscopy every 5 y	13-30	1-3	1	Flexible sigmoidoscopy: 743-801 Colonoscopy: 170-192	<1
CT colonography every 5 y	14-31	1-3	1	CT colonography: 798-806 Colonoscopy: 153-165	1

INTERET D'ABAISSE L'AGE DU DÉPISTAGE?

Gastroenterology 2022;162:285–299

CLINICAL PRACTICE GUIDELINES

Patients à
risque
moyen

Updates on Age to Start and Stop Colorectal Cancer Screening: Recommendations From the U.S. Multi-Society Task Force on Colorectal Cancer



Recommendations

Updated

We suggest that clinicians offer CRC screening to all average-risk individuals ages 45 to 49 (weak recommendation; low-quality evidence).

For average-risk individuals who have not initiated screening before age 50, we recommend that clinicians offer CRC screening to all average-risk individuals beginning at age 50 (strong recommendation, high-quality evidence).

Unchanged

We recommend high-quality^a colonoscopy every 10 years or an annual FIT as first-tier options for screening of colorectal neoplasia (strong recommendation; moderate-quality evidence).

We recommend flexible sigmoidoscopy every 5 to 10 years (strong recommendation; high-quality evidence), CT colonography every 5 years (strong recommendation, low-quality evidence), or FIT–fecal DNA every 3 years (strong recommendation, low-quality evidence) in individuals who decline colonoscopy and a FIT.

We suggest that capsule colonoscopy (if available) is an appropriate screening test every 5 years when individuals decline colonoscopy, FIT, FIT–fecal DNA, CT colonography, and flexible sigmoidoscopy (weak recommendation, low-quality evidence).

We suggest that individuals who are up to date with screening and have negative prior screening tests, particularly high-quality^a colonoscopy, consider stopping screening at age 75 years or when life expectancy is less than 10 years (weak recommendation, low-quality evidence).

We suggest that persons without prior screening should be considered for screening up to age 85, depending on consideration of their age and comorbidities (weak recommendation, low-quality evidence).

INTERET D'ABAISSE L'AGE DU DÉPISTAGE?

Patients à
Risque
élevé

Calculating the Starting Age for Screening in Relatives of Patients With Colorectal Cancer Based on Data From Large Nationwide Data Sets

Yu Tian,^{1,2} Elham Kharazmi,^{1,3,§} Hermann Brenner,^{1,4,5} Xing Xu,^{1,2} Kristina Sundquist,^{3,6,7} Jan Sundquist,^{3,6,7} and Mahdi Fallah^{1,3,§}

Gastroenterology 2020

The Swedish Family-Cancer Database,
Plus grande base de donnée du monde en terme de données familiales
12.8 millions d'individus inclus avec infos familiales



INTERET D'ABAISSE L'AGE DU DÉPISTAGE?

1 First-degree relative

Calculating the Starting Age for Screening in Relatives of Patients With Colorectal Cancer Based on Data From Large Nationwide Data Sets

Yu Tian,^{1,2} Elham Kharazmi,^{1,3,§} Hermann Brenner,^{1,4,5} Xing Xu,^{1,2} Kristina Sundquist,^{3,6,7} Jan Sundquist,^{3,6,7} and Mahdi Fallah^{1,3,§}

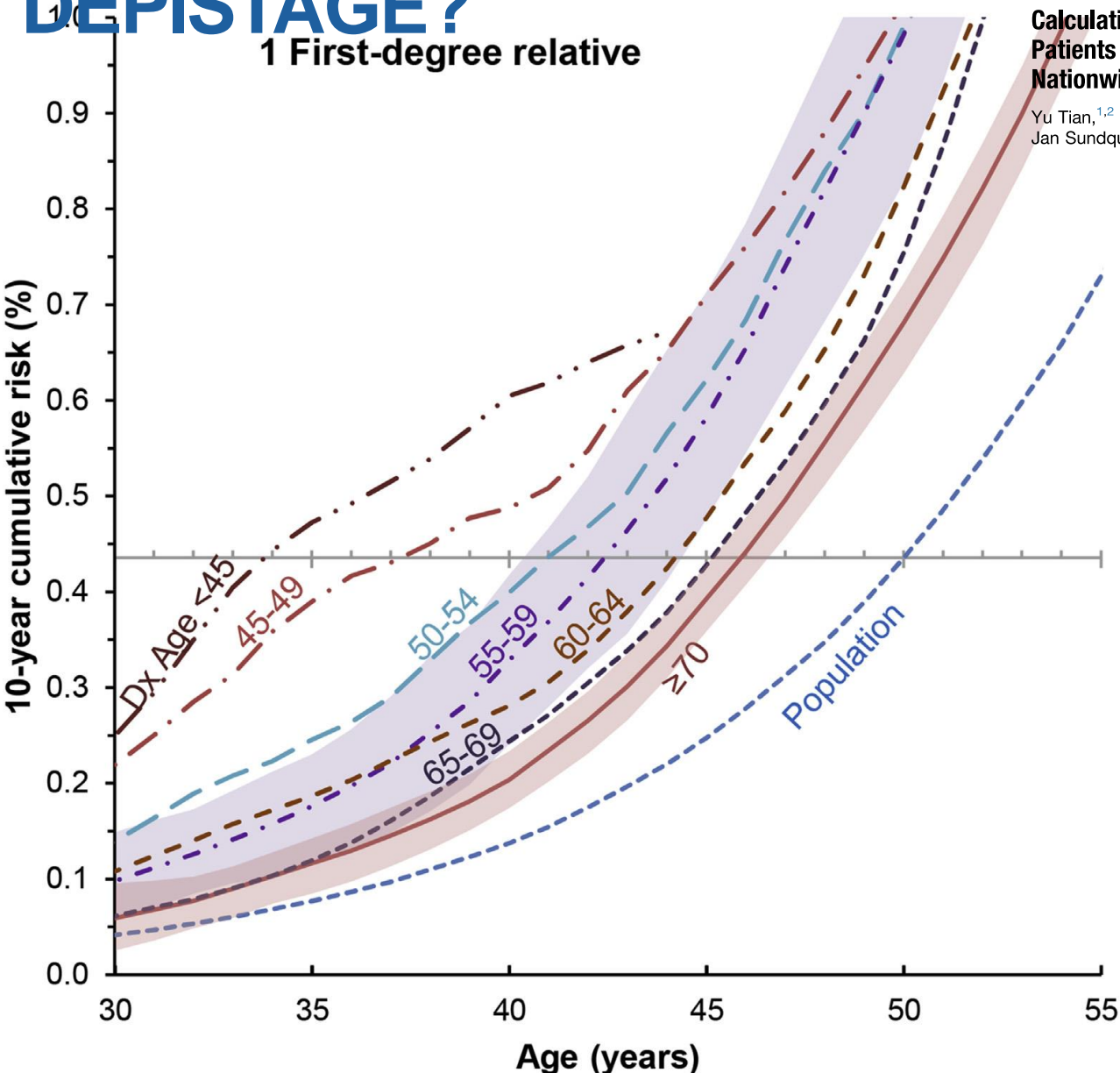
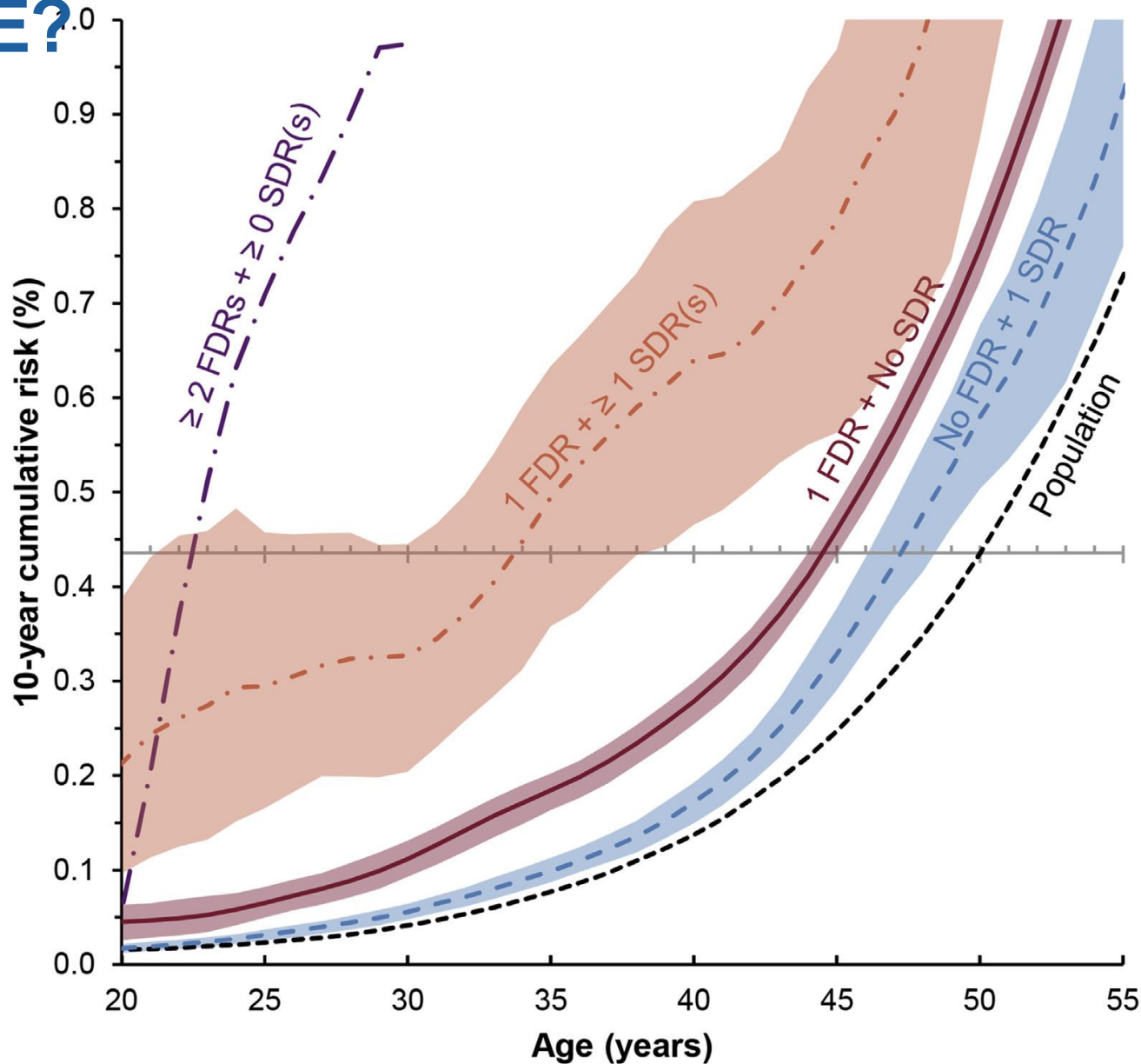


Figure 2. Age-specific 10-year cumulative risk of colorectal cancer in those with 1 affected first-degree relative by age at diagnosis of the relative. Dx Age indicates the age at diagnosis of the first-degree relative. The red shaded area represents 95% confidence intervals (CIs) for those with 1 affected first-degree relative diagnosed at an older age (≥ 70 years), and the purple shaded area shows the 95% CIs for those with 1 affected first-degree relative diagnosed at 55–59 years. Other 95% CIs were omitted for clarity. Example: Individuals with 1 affected first-degree relative diagnosed with colorectal cancer after age 70 years attained the 0.44% risk level (general population risk at age 50 years) at age 46 years, that is 4 years earlier.

INTERET D'ABAISSE L'AGE DU DÉPISTAGE?

Figure 1. Age-specific 10-year cumulative risk of colorectal cancer in those with a family history of colorectal cancer in first-degree or second-degree relatives. The red shaded area represents 95% confidence intervals (CIs) for those with 1 affected first-degree relative, the blue shaded area shows the 95% CIs for those with 1 affected second-degree relative, and the orange shaded area shows the 95% CIs for those with 1 affected first-degree relative and 1 or more second-degree relatives. Other 95% CIs were omitted for clarity. Example: Individuals with a family history of colorectal cancer in only 1 first-degree relative attained the 0.44% risk level of average-risk 50-year-old individuals (general population) at age 45 years, that is, 5 years earlier. FDR, first-degree relative; SDR, second-degree relative.



PATIENTS A RISQUE ÉLEVÉ de CCR

Hors MICI et ATCD personnel d'adénome



Début dépistage à 45 ans

**A adapter à l'âge du diagnostic du CCR le plus jeune
(5 à 10 ans avant)**

Et au nombre d'antécédents familiaux

Si doute sur risque très élevé CCR:

Adresser en Cs d'Oncogénétique

En utilisant les critères de la SFED pour la définition du risque élevé

PATIENTS A RISQUE ÉLEVÉ de CCR MICI

ECCO Guidelines on Inflammatory Bowel Disease and Malignancies

Screening colonoscopy should be offered to all IBD patients 8 years after symptom onset*



Journal of Crohn's and Colitis, 2023, **XX**, 1–28
<https://doi.org/10.1093/ecco-jcc/jjac187>
Advance access publication 18 December 2022
ECCO Guideline/Consensus Paper

Lower risk

Colitis affecting <50% colon
Extensive colitis with minimal endoscopic or histological inflammation

Intermediate risk

Extensive colitis with mild to moderate endoscopic and/or histological inflammation
CRC in first-degree family member >50 years

High risk

Extensive colitis with severe endoscopic and/or histological inflammation
CRC in first-degree family member ≤50 years
PSC**
Stricture in past 5 years
Dysplasia in past 5 years***

Consider additional risk factors, such as age at diagnosis and male gender when possible, surveillance colonoscopy should be performed during remission
DCE, VCE, or HD-WLE**** should be performed, with targeted biopsies

Surveillance colonoscopy every 5 years

Surveillance colonoscopy every 2–3 years

Surveillance colonoscopy annually

*In patients who have no colonic involvement, or disease limited to the rectum, no further IBD specific surveillance is indicated

**Including post liver transplant

***In patients who have not undergone surgery

****Dye-based chromoendoscopy (DCE), virtual electronic chromoendoscopy (VCE), high definition white light endoscopy (HD-WLE)

PATIENTS A RISQUE TRES ÉLEVÉ de CCR

Syndrome	Gènes	Age de début des coloscopies
Syndrome de Lynch	Gènes MMR (<i>MLH1</i> , <i>MSH2</i> <i>MSH6</i> , <i>PMS2</i>)	20 / 25 ans (option 35 pour <i>MSH6</i> et <i>PMS2</i>)
Polypose adénomateuse familiale	<i>APC</i>	12 / 14 ans
Polypose liée à <i>MUTYH</i>	<i>MUTYH</i> (bi-allélique)	18 ans
Sd de Peutz Jeghers	<i>STK11</i>	8 ans
Polypose juvénile	<i>SMAD4</i> / <i>BMPR1A</i>	12 / 15 ans

Van Leerdam ME. et al. Reco ESGE Lynch Endoscopy 2019

Van Leerdam ME, et al. Reco ESGE Polyposes Endoscopy. 2019

Cohen S, et al. Reco ESPHGAN Juvenile Polyposis Sd J Pediatr Gastroenterol Nutr. 2019

Latchford A, Reco ESPHGAN. Peutz Jeghers Sd J Pediatr Gastroenterol Nutr. 2019

Hyer W, et al. Reco ESPHGAN FAP J Pediatr Gastroenterol Nutr. 2019

CONCLUSION

ÉLEVÉ

Antécédents personnels de maladie inflammatoire chronique intestinale (MICI)

- Maladie de Crohn colique.
- Rectocolite hémorragique.

Antécédents d'adénome* ou de CCR

- Personnel.
- Familial (1^{er} degré).

Dépistage individuel

- Consultation gastro-entérologique/ suivi spécialisé.
- Coloscopie*/Chromoendoscopie**.

Après 8 ans d'évolution de la MICI
Puis selon les recommandations ECCO

**A 45 ans ou 5 à 10 ans avant
le CCR le plus jeune**

NB : Adresser en Cs OG si doute
sur risque très élevé

CONCLUSION

TRES ÉLEVÉ

Prédisposition héréditaire

- Polyposes adénomateuses familiales (PAF).
- Cancer colorectal héréditaire non polyposique (syndrome de Lynch).

Entre 8 et 35 ans selon le syndrome en question

Dépistage individuel

- Consultation oncogénétique (recherche mutation).
- Consultation gastro-entérologique.
- Chromoendoscopie**.

CONCLUSION

MOYEN

Population générale

- 50 à 74 ans.
- asymptomatique.



Discuter abaissement FIT à 45 ans...

... et poursuite au delà de 75 ans?

Dépistage organisé

- Test de recherche de sang occulte dans les selles (tous les 2 ans).

MERCI POUR VOTRE ATTENTION !

Table 2 | Comparison of CRC screening guidelines worldwide

Country/region	Age to initiate screening (years)	Age to stop screening (years)	Modality and frequency
Canada ⁷⁷ (variations exist across provinces)	50	74	Biennial FIT and hsFOBT
EU ^{3,76}	50 (55 or 60 in some regions)	74	Biennial FIT (although Germany uses colonoscopy at age 55)
UK ⁵⁴	50	74	Biennial FIT
Pan American Region ⁷⁸	50	74	Biennial FIT
USA ^{16,17,74}	45	85	Multiple options; colonoscopy most commonly used
South Korea ³	50 and older	Not specified	Annual FIT
Australia ⁷⁹	55	75	Biennial FIT
Japan ⁸⁰	40	No upper limit	Annual FIT
Taiwan ^{81,82}	55	75	Biennial FIT
Israel ⁸⁴	50	74	Annual FIT
Abu Dhabi ³	40	Not specified	Colonoscopy

CRC, colorectal cancer; EU, The European Union; FIT, faecal immunochemical test; hsFOBT, high-sensitivity faecal occult blood test.