

The background is a vibrant blue digital scene. On the left, a portion of a globe is visible, showing continents and oceans. The foreground is dominated by a grid of glowing binary digits (0s and 1s) that recede into the distance, creating a sense of depth. A bright light source on the right side casts long, radiating beams of light across the scene, and several glowing, wavy lines suggest data flow or network connections.

# Medical Internet News

Bác sỹ Lê Đình Tín  
Phòng khám Tiêu hoá - Gan mật

# Disease Outbreak News (DONs)

Latest WHO Disease Outbreak News (DONs), providing information on confirmed acute public health events or potential events of concern.

Disease Outbreak News

**17 June 2022 | Multi-country monkeypox outbreak: situation update**

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Disease Outbreak News

**17 June 2022 | Cholera - Pakistan**

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Disease Outbreak News

**10 June 2022 | Multi-country monkeypox outbreak: situation update**

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Disease Outbreak News

**4 June 2022 | Multi-country monkeypox outbreak: situation update**

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Disease Outbreak News

**1 June 2022 | Crimean-Congo Hemorrhagic Fever - Iraq**

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Disease Outbreak News

**29 May 2022 | Multi-country monkeypox outbreak in non-endemic countries: Update**

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Disease Outbreak News

**27 May 2022 | Acute hepatitis of unknown aetiology in children - Multi-country**

## Acute hepatitis of unknown aetiology in children - Multicountry

27 May 2022

### Outbreak at a glance:

Six hundred and fifty probable cases of acute hepatitis of unknown aetiology in children have been reported to WHO from 33 countries in five WHO Regions between 5 April and 26 May 2022. The aetiology of this severe acute hepatitis remains unknown and under investigation; the cases are more clinically severe and a higher proportion develops acute liver failure compared with previous reports of acute hepatitis of unknown aetiology in children. It remains to be established whether and where the detected cases are above-expected baseline levels. WHO assesses the risk at the global level as moderate.

### WHO working case definition:

- **Confirmed:** N/A at present
- **Probable:** A person presenting with an acute hepatitis (non hep A-E\*) with serum transaminase >500 IU/L (AST or ALT), who is 16 years and younger, since 1 October 2021
- **Epi-linked:** A person presenting with an acute hepatitis (non hep A-E\*) of any age who is a close contact of a probable case, since 1 October 2021

\*If hepatitis A-E serology results are awaited, but other criteria met, these can be reported and will be classified as “**pending classification**”. Cases with other explanations for their clinical presentation are discarded.

Out of the 650 probable cases, at least 38 (6%) children have required transplants, and nine (1%) deaths have been reported to WHO.

# Joint ECDC-WHO Regional Office for Europe Hepatitis of Unknown Origin in Children Surveillance Bulletin

Produced on 17 June 2022 at 08:45

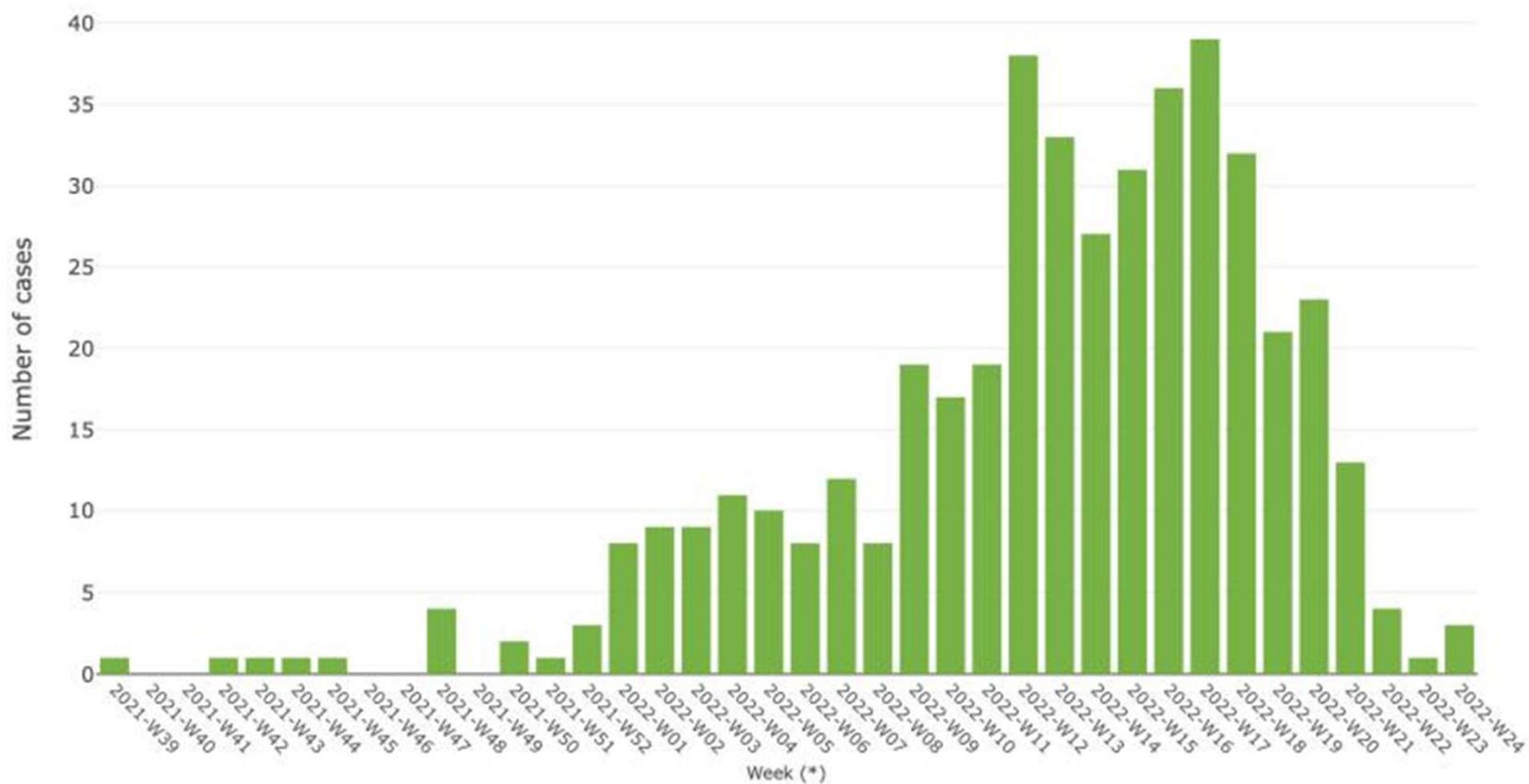
According to the latest ECDC Rapid Risk Assessment, the current leading hypothesis is that a **co-factor affecting young children having an adenovirus infection**, which would be mild in normal circumstances, triggers a more severe infection or immune-mediated liver damage. Other aetiologies (e.g. other infectious or toxic agents) are still under investigation and have not been excluded but are considered less plausible. The complete disease pathogenesis is not clear yet. The disease is rare and evidence around human-to-human transmission remains unclear; cases in the EU/EEA are almost entirely sporadic. As a result, the risk for the European paediatric population cannot be accurately assessed.

- The majority (76.6%) of cases are five years old or younger.
- Of the 449 probable cases, 276 have information available on clinical outcome. Of these, 201 have recovered, while 74 remain under medical care.
- Of 279 cases with available information, 87 (31.2%) required admission to an intensive care unit. Of the 227 cases for which this information is available, 19 (8.4%) have received a liver transplant. There has been one death associated with the disease.
- Overall, 313 cases were tested for adenovirus by any specimen type and had a valid positive or negative result. Of these, **164 (52.4%) tested positive**. The positivity rate was the highest in whole blood specimens (53.9%).
- Of the 292 cases PCR tested for SARS-CoV-2, **31 (10.6%) were positive**.

# Joint ECDC-WHO Regional Office for Europe Hepatitis of Unknown Origin in Children Surveillance Bulletin

Produced on 17 June 2022 at 08:45

Number of cases per week by date of onset of illness or date of hospitalisation





## Monkeypox

### Overview

- Monkeypox virus is an orthopoxvirus that causes a disease with symptoms similar, but less severe, to smallpox. While smallpox was eradicated in 1980, monkeypox continues to occur in countries of central and west Africa. Two distinct clades are identified: the west African clade and the Congo Basin clade, also known as the central African clade.
- Monkeypox is a zoonosis: a disease that is transmitted from animals to humans. Cases are often found close to tropical rainforests where there are animals that carry the virus. Evidence of monkeypox virus infection has been found in animals including squirrels, Gambian poached rats, dormice, different species of monkeys and others.
- Human-to-human transmission is limited, with the longest documented chain of transmission being 6 generations, meaning that the last person to be infected in this chain was 6 links away from the original sick person. It can be transmitted through contact with bodily fluids, lesions on the skin or on internal mucosal surfaces, such as in the mouth or throat, respiratory droplets and contaminated objects.
- Detection of viral DNA by polymerase chain reaction (PCR) is the preferred laboratory test for monkeypox. The best diagnostic specimens are directly from the rash – skin, fluid or crusts, or biopsy where feasible. Antigen and antibody detection methods may not be useful as they do not distinguish between orthopoxviruses.

## Multi-country monkeypox outbreak: situation update

17 June 2022

Between 1 January to 15 June 2022, a cumulative total of 2103 laboratory confirmed cases, one probable case, and one death have been reported to WHO from 42 countries in five WHO Regions. The majority of cases (98%) have been reported since May 2022.

- The majority (84%) of confirmed cases (n=1773) are from the WHO European Region.
- Confirmed cases have also been reported from the African Region (n=64; 3%),
- the Region of the Americas (n=245; 12%),
- Eastern Mediterranean Region (n=14; <1%)
- and Western Pacific Region (n=7; <1%).

Of cases reported (468 out 2103 confirmed cases) from 14 countries for which demographic information and personal characteristics are available, 99% are reported in men aged 0 to 65 years (Interquartile range: 32 to 43 years; median age 37 years), of which most self-identify as men who have sex with other men.

## Multi-country monkeypox outbreak: situation update

10 June 2022

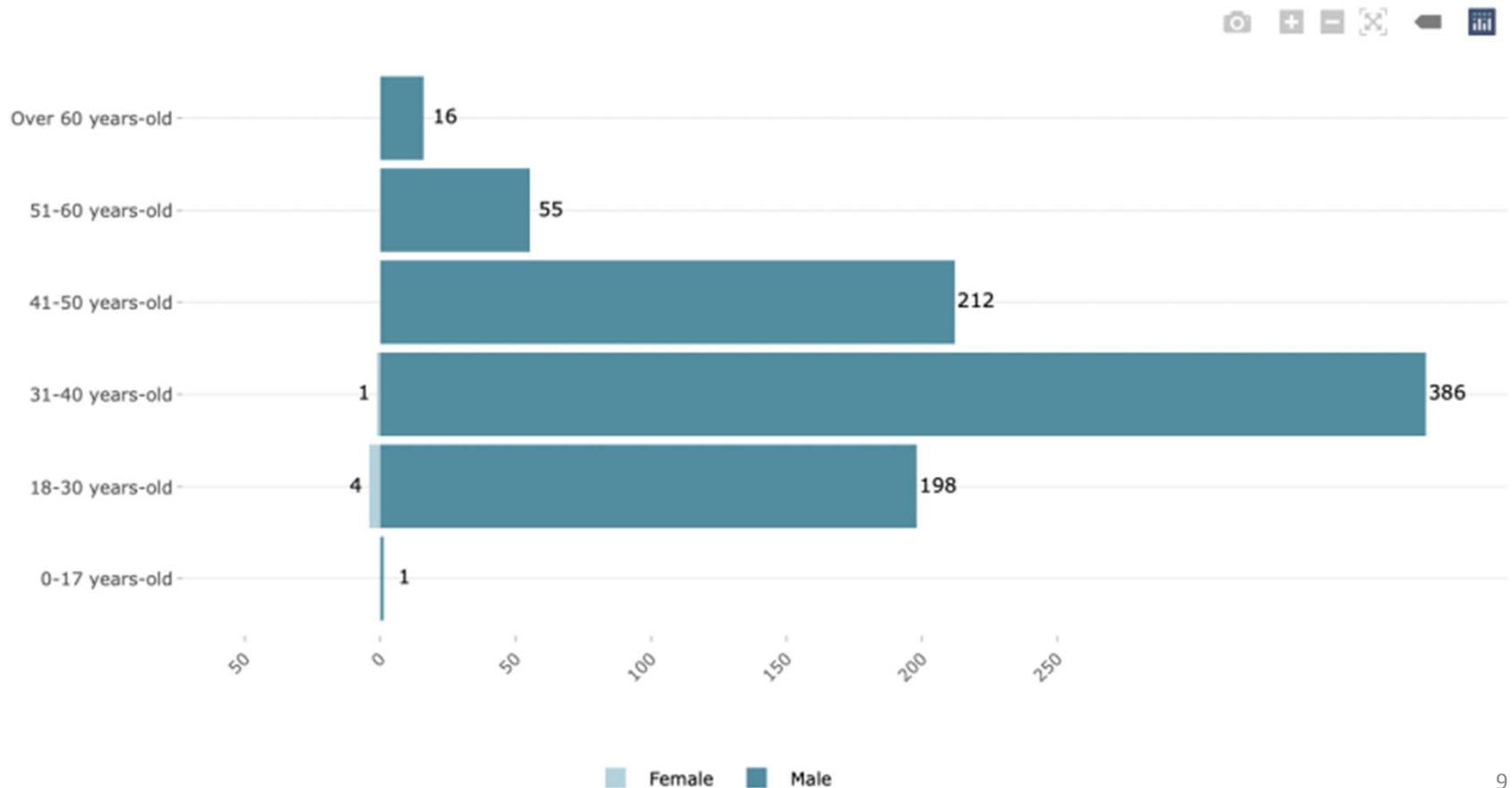
*Cases of monkeypox in WHO African Region reported since January 2022, as of 8 June 2022*

Country	Confirmed cases	Suspected cases	Deaths
Cameroon	3	28	2
Central African Republic	8	17	2
Republic of Congo	2	7	3
Democratic Republic of the Congo	10	1356	64
Liberia	0	4	0
Nigeria	31	110	1
Sierra Leone	0	2	0
Ghana	5	12	0
<b>Cumulative</b>	<b>59</b>	<b>1536</b>	<b>72</b>

# Joint ECDC-WHO Regional Office for Europe Monkeypox Surveillance Bulletin

Produced on 17 June 2022, 12:00

Age and sex distribution of cases of monkeypox, European Region, TESSy, 2022



# Joint ECDC-WHO Regional Office for Europe Monkeypox Surveillance Bulletin

Produced on 17 June 2022 , 12:00

## Summary of outcome, HIV status, sexual orientation and cases of monkeypox among health care workers, European Region, TESSy, 2022

	Yes	No	Total
Admitted to ICU	0 (0.0%)	89 (100.0%)	89 (100.0%)
Hospitalized (isolation or treatment)	12 (12.1%)	87 (87.9%)	99 (100.0%)
Died	0 (0.0%)	306 (100.0%)	306 (100.0%)
HIV-Positive	28 (35.9%)	50 (64.1%)	78 (100.0%)
→ MSM	423 (98.4%)	7 (1.6%)	430 (100.0%)
Health care worker	3 (3.1%)	93 (96.9%)	96 (100.0%)

Showing 1 to 6 of 6 entries

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## Multi-country monkeypox outbreak: situation update

17 June 2022

To date, the clinical presentation of monkeypox cases associated with this outbreak has been variable. Many cases in this outbreak are not presenting with the classically described clinical picture for monkeypox (fever, swollen lymph nodes, followed by a centrifugal evolving rash).

Atypical features described include: presentation of only a few or even just a single lesion; lesions that begin in the genital or perineal/perianal area and do not spread further; lesions appearing at different (asynchronous) stages of development; and the appearance of lesions before the onset of fever, malaise and other constitutional symptoms.

## Multi-country monkeypox outbreak: situation update

17 June 2022

Currently, the public health risk at the global level is assessed as moderate considering this is the first time that monkeypox cases and clusters are reported concurrently in many countries in widely disparate WHO geographical areas, balanced against the fact that mortality has remained low in the current outbreak.

Human-to-human transmission occurs through close or direct physical contact (face-to-face, skin-to-skin, mouth-to-mouth, mouth-to-skin) with infectious lesions or mucocutaneous ulcers including during sexual activity, respiratory droplets (and possibly short-range aerosols), or contact with contaminated materials (e.g., linens, bedding, electronics, clothing, sex toys)

While investigations are ongoing, preliminary data from polymerase chain reaction (PCR) assays indicate that the monkeypox virus genes detected belong to the West African clade.

## Multi-country monkeypox outbreak: situation update

17 June 2022

Vaccination against smallpox was shown in the past to be cross-protective against monkeypox.

Smallpox and monkeypox vaccines, where available, are being deployed in a few countries to manage close contacts. Second- and third-generation smallpox vaccines have been developed to have an improved safety profile and one has been approved for prevention of monkeypox. This vaccine is based on a strain of vaccinia virus (known generically as modified vaccinia Ankara Bavarian Nordic strain, or MVA-BN). This vaccine has been approved for prevention of monkeypox in Canada and the United States of America. In the European Union, this vaccine has been approved for prevention of smallpox under exceptional circumstances.

An antiviral agent, **tecovirimat**, has been approved by the European Medicines Agency, Health Canada, and the United States Food and Drug Administration for the treatment of smallpox.

## Age-stratified prevalence and predictors of neoplasia among US adults undergoing screening colonoscopy in a national endoscopy registry

Peter S. Liang  · J. Lucas Williams · Jason A. Dominitz · Douglas A. Corley · Ann G. Zauber

Published: May 25, 2022 · DOI: <https://doi.org/10.1053/j.gastro.2022.05.036>

### Methods

Outpatient screening colonoscopies performed during 2010-2020 in the GIQuIC registry were analyzed. We measured the prevalence of advanced neoplasia and adenomas by age, sex, and race/ethnicity, as well as the prevalence ratio (PR) of neoplasia compared to the reference group of 50-54 year-olds. Multivariable logistic regression models were used to identify predictors of neoplasia.

### Results

We identified 3,928,727 screening colonoscopies, of which 129,736 (3.3%) were performed on average-risk individuals younger than 50 years. The prevalence of advanced neoplasia was 6.2% for 50-54 year-olds and 5.0% (PR 0.81, 95% CI 0.78-0.83) for average-risk 45-49 year-olds. Men had higher prevalence of neoplasia than women for all age groups. White individuals had higher prevalence of advanced neoplasia than persons of other racial/ethnic groups in most age groups, which was partially driven by serrated lesions. On multivariable regression, White individuals had higher odds of advanced neoplasia than Black, Hispanic, and Asian individuals in both younger and older age groups.

### Conclusions

In a large US endoscopy registry, the prevalence of advanced neoplasia in 45-49 year-olds was substantial and supports beginning screening at age 45 years. White individuals had higher risk of advanced neoplasia than Black, Hispanic, and Asian individuals across the age spectrum. These findings may inform adenoma detection benchmarks and risk-based screening strategies.

# Age at Initiation of Lower Gastrointestinal Endoscopy and Colorectal Cancer Risk Among US Women

Wenjie Ma, MD, ScD<sup>1,2</sup>; Molin Wang, PhD<sup>3,4</sup>; Kai Wang, MD, PhD<sup>3</sup>; et al

> Author Affiliations

JAMA Oncol. Published online May 5, 2022. doi:10.1001/jamaoncol.2022.0883

## Abstract

**Importance** In the past 4 years, the American Cancer Society and the US Preventive Services Task Force updated recommendations to initiate colorectal cancer (CRC) screening at 45 years of age to address the increasing incidence of CRC among adults younger than 50 years. However, empirical evidence evaluating the potential benefits of screening in younger populations is scant.

**Objective** To examine the association between endoscopy initiation at different ages and risk of CRC among US women.

**Design, Setting, and Participants** This prospective cohort study used data from the Nurses' Health Study II, which included US female health professionals followed up from 1991 through 2017. Data analysis was performed from August 2020 to June 2021.

**Exposure** Age at initiation of sigmoidoscopy or colonoscopy for screening (routine screening or because of family history) or symptoms.

**Main Outcomes and Measures** Incident CRC, confirmed by medical records, pathology reports, and the National Death Index. Cumulative incidence of CRC in each group was estimated with age as the time scale, and the absolute risk reduction associated with endoscopy initiation at different ages through 60 years was calculated. Cox proportional hazards regression was used to calculate hazard ratios (HRs) and 95% CIs, stratified by age and calendar year of questionnaire cycle and adjusted for CRC risk factors in the multivariable models.

# Age at Initiation of Lower Gastrointestinal Endoscopy and Colorectal Cancer Risk Among US Women

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JAMA Oncol. Published online May 5, 2022. doi:10.1001/jamaoncol.2022.0883

## Abstract

**Results** Among 111 801 women aged 26 to 46 years (median, 36 years) at enrollment, 519 incident CRC cases were documented over 26 years, encompassing 2 509 358 person-years of follow-up. In the multivariable analysis, compared with no endoscopy, undergoing endoscopy was associated with a significantly lower risk of incident CRC for age at initiation before 45 years (HR, 0.37; 95% CI, 0.26-0.53), 45 to 49 years (HR, 0.43; 95% CI, 0.29-0.62), 50 to 54 years (HR, 0.47; 95% CI, 0.35-0.62), and 55 years or older (HR, 0.46; 95% CI, 0.30-0.69). The absolute reduction in the estimated cumulative incidence of CRC through 60 years of age was 72 per 100 000 persons for initiation of endoscopy at 45 to 49 years of age vs 50 to 54 years of age. Compared with no endoscopy, initiation of endoscopy before 50 years of age was also associated with a reduced risk of CRC diagnosed before 55 years of age (<45 years: HR, 0.45 [95% CI, 0.29-0.70]; 45-49 years: HR, 0.43 [95% CI, 0.24-0.76]).

**Conclusions and Relevance** In this cohort study, compared with no endoscopy, initiation of endoscopy before 50 years of age was associated with a reduced risk of CRC, including CRC diagnosed before 55 years of age. Screening before 50 years of age was associated with greater absolute reduction in CRC risk compared with initiation of CRC screening at 50 years of age or later.

# Improving Early Detection and Clinical Management of Bladder Cancer

A promising urine test (uTERTpm)

International Agency for Research on Cancer



## Summary

Bladder cancer is the 10th most common cancer type worldwide and is one of the most challenging and expensive cancers to diagnose and treat. Its diagnosis relies on cystoscopy, an invasive and expensive procedure that might not be easily accessible in low-resource settings. IARC has developed a urine assay that detects mutations in the promoter of the TERT (telomerase reverse transcriptase) gene (uTERTpm) and has shown its excellent performance for the detection of bladder cancer in urine samples in two independent studies. The detection of this biomarker is simple and non-invasive and could provide a cost-effective tool to improve both early detection of bladder cancer and monitoring of recurrence. It may also open new avenues for screening of high-risk populations (smokers and workers exposed to bladder carcinogens).

### **DIAGURO study in France**

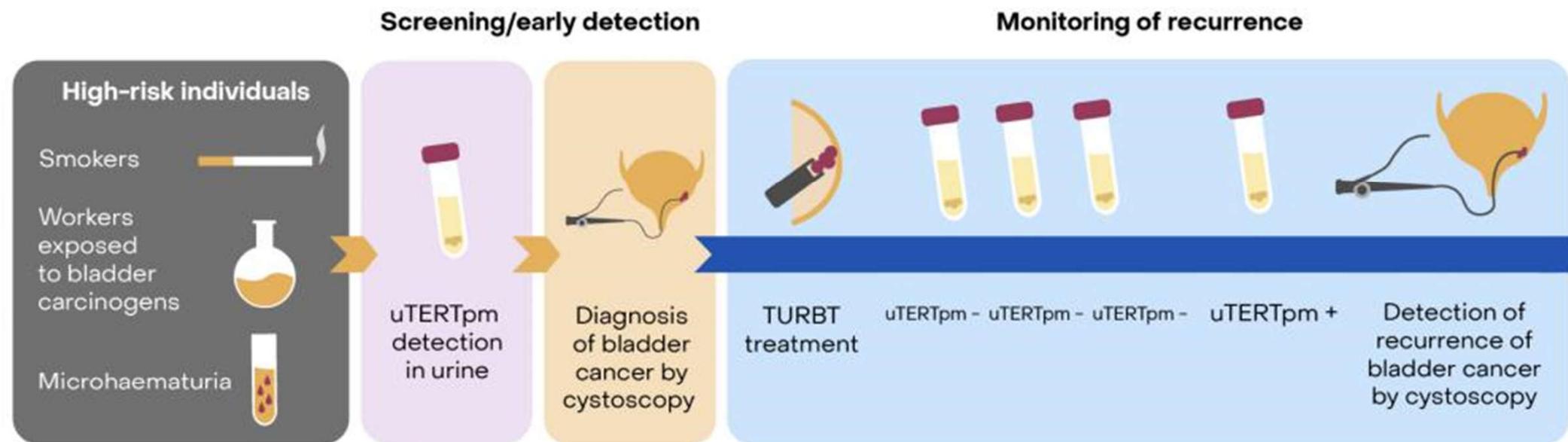
- 93 patients diagnosed with primary or recurrent bladder cancer (urothelial carcinoma) and 94 patients with urological conditions other than bladder cancer.
- The uTERTpm biomarker was assessed in urine samples with the UroMuTERT assay.
- 87% of patients with bladder cancer were positive for the marker.
- 95% of individuals without any sign of bladder cancer were negative for the marker (see Figure 2).

### **Golestan Cohort Study in the Islamic Republic of Iran**

- 50 045 individuals aged 40–75 years, recruited in Golestan Province in north-eastern Islamic Republic of Iran in 2004–2008, gave a urine sample at the time of recruitment and were followed up for 14 years.
- uTERTpm was assessed in the urine of the 38 participants who developed primary bladder cancer (urothelial carcinoma) during the follow-up and 152 healthy individuals without any history of cancer at the end of follow-up.
- uTERTpm was assessed with a combination of two independent methods: the UroMuTERT and droplet digital PCR (ddPCR) assays.
- 46.7% of initially asymptomatic individuals who developed bladder cancer during the follow-up were positive for the marker.
- 100% of individuals without any sign of bladder cancer were negative for the marker.
- uTERTpm was detected in urine samples up to 10 years before the diagnosis of bladder cancer.

## Key evidence messages

- There is a tremendous need for a robust, cost-effective, and non-invasive method for early detection of bladder cancer, to complement or replace the diagnostic standard of invasive cystoscopy.
- To be clinically useful, the method should:
  - be sensitive, specific, and robust;
  - demonstrate improved diagnostic accuracy compared with cystoscopy;
  - demonstrate improved health outcomes compared with current practice;
  - be easily implementable into routine clinical practice; and
  - be cost-effective (see Figure 1).
- The detection of urinary *TERT* promoter mutations (uTERTpm) is a simple and non-invasive method.
- uTERTpm testing, followed by cystoscopy or urography, could provide a cost-effective tool for screening of high-risk populations (smokers and workers exposed to bladder carcinogens).
- This research-based evidence needs to be translated into clinical practice to improve the management of patients with bladder cancer and high-risk populations.
- The health benefits of a promising urinary biomarker such as uTERTpm include:
  - improved detection of early-stage bladder tumours or early recurrence, which could lead to better survival;
  - reduced numbers of unnecessary invasive cystoscopy procedures in patients with a negative uTERTpm test result;
  - increased adherence of high-risk populations to a simple, harmless screening programme; and
  - reduced cost of clinical management of suspected bladder cancer (i.e. €25 per uTERTpm biomarker test).
- Including patient perspectives in research will make scientific and medical advances more timely and effective for people with bladder cancer.



**Fig. 3** Potential clinical applications of the urinary *TERT* promoter mutations (uTERTpm) biomarker. TURBT, transurethral resection of bladder tumour.

## Irritable Bowel Syndrome and Long-Term Risk of Cancer: A Prospective Cohort Study Among 0.5 Million Adults in UK Biobank

Wu, Shanshan PhD<sup>1</sup>; Yuan, Changzheng ScD<sup>2,3</sup>; Liu, Si PhD<sup>1</sup>; Zhang, Qian PhD<sup>1</sup>; Yang, Zhirong PhD<sup>4,5</sup>; Sun, Feng PhD<sup>6</sup>; Zhan, Siyan PhD<sup>6</sup>; Zhu, Shengtao PhD<sup>1</sup>; Zhang, Shutian PhD<sup>1</sup>

### **Abstract**

#### INTRODUCTION:

To investigate the prospective association of irritable bowel syndrome (IBS) with long-term risk of overall, site-specific cancer and cancer-specific mortality in general population.

#### METHODS:

Participants free of inflammatory bowel disease, celiac disease, and any cancer at baseline from the UK Biobank were included, with patients with IBS as the exposure group and non-IBS patients as the reference group. The primary outcome was the incidence of overall cancer and cancer-specific mortality. Secondary outcomes included site-specific cancers and types of digestive cancers. The Cox proportional hazard model was used to investigate the associated risk of incident malignancies and related mortality.

## Irritable Bowel Syndrome and Long-Term Risk of Cancer: A Prospective Cohort Study Among 0.5 Million Adults in UK Biobank

Wu, Shanshan PhD<sup>1</sup>; Yuan, Changzheng ScD<sup>2,3</sup>; Liu, Si PhD<sup>1</sup>; Zhang, Qian PhD<sup>1</sup>; Yang, Zhirong PhD<sup>4,5</sup>; Sun, Feng PhD<sup>6</sup>; Zhan, Siyan PhD<sup>6</sup>; Zhu, Shengtao PhD<sup>1</sup>; Zhang, Shutian PhD<sup>1</sup>

### Abstract

#### RESULTS:

Among 449,595 participants, 22,338 (5.0%) were diagnosed with IBS. During a median of 12.2-year follow-up, 2,937 cases of incident cancer were identified in patients with IBS (11.47 per 1,000 person-years), compared with 60,556 cases in reference individuals (12.51 per 1,000 person-years). Of these cases, 512 and 12,282 cancer-specific deaths occurred in IBS and non-IBS groups. Compared with non-IBS, the adjusted hazard ratio for overall cancer and cancer-specific mortality was 0.97 (95% confidence interval: 0.93–1.00,  $P = 0.062$ ) and 0.83 (0.76–0.91,  $P < 0.001$ ) among patients with IBS. Specifically, decreased risk of digestive (0.79 [0.71–0.89]), particularly colon (0.75 [0.62–0.90]) and rectal (0.68 [0.49–0.93]), cancers was observed in patients with IBS. Further sensitivity analysis and subgroup analysis by age and sex indicated similar results.

#### DISCUSSION:

Compared with the general population, IBS does not increase the overall risk of cancer. Conversely, IBS is associated with lower risk of incident colorectal cancer and cancer-specific mortality.

## 'Sit Less, Move More' to Reduce Stroke Risk

Sue Hughes

June 03, 2022

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Spending more time doing light-intensity activities and less time being sedentary was associated with a reduced risk for first stroke in a population-based study of middle aged and older adults.

The study also found relatively short periods of moderate-to-vigorous exercise were associated with reduced stroke risk.

"Our results suggest there are a number of ways to reduce stroke risk simply by moving about," lead author Steven P. Hooker, PhD, San Diego State University, commented to *theheart.org* | *Medscape Cardiology*. "This could be with short periods of moderate-to-vigorous activity each day, longer periods of light activity, or just sedentary for shorter periods of time. All these things can make a difference."

Hooker explained that it while it has been found previously that moderate-to-vigorous exercise reduces stroke risk, this study gives more information on light-intensity activities and sedentary behavior and the risk of stroke.

"Our results suggest that you don't have to be a chronic exerciser to reduce stroke risk. Replacing sedentary time with light-intensity activity will be beneficial. Just go for a short walk, get up from your desk and move around the house at regular intervals. That can help to reduce stroke risk," Hooker said.

"Our message is basically to sit less and move more," he added.

Original Investigation | Neurology



June 3, 2022

# Association of Accelerometer-Measured Sedentary Time and Physical Activity With Risk of Stroke Among US Adults

Steven P. Hooker, PhD<sup>1</sup>; Keith M. Diaz, PhD<sup>2</sup>; Steven N. Blair, PED<sup>3,4</sup>; [et al](#)

## Key Points

**Question** Are physical activity of varying intensity and duration and time spent in sedentary behavior associated with risk of incident stroke in middle-aged and older US adults?

**Findings** In this cohort study of 7607 adults, greater accumulation of light-intensity and moderate- to vigorous-intensity physical activity were both associated with a reduced risk of stroke. Greater time spent being sedentary and longer bouts of sedentary time were associated with a higher risk of stroke.

**Meaning** This study's findings suggest that more time spent being physically active, especially at moderate intensities, and less time spent being sedentary, particularly in longer bouts, may help reduce the risk of stroke.

Cảm ơn sự chú ý của quý vị.