

# U.S. Preventive Services Task Force

## Screening for Pancreatic Cancer: Recommendation Statement

### Summary of Recommendation and Evidence

The USPSTF recommends against screening for pancreatic cancer in asymptomatic adults (*Table 1*). **D recommendation.**

### Rationale

#### IMPORTANCE

Pancreatic ductal adenocarcinoma (referred to hereafter as pancreatic cancer) is an uncommon cancer with an age-adjusted annual incidence of 12.9 cases per 100,000 person-years. However, the death rate is 11.0 deaths per 100,000 person-years because the prognosis of pancreatic cancer is poor.<sup>1</sup> Although its incidence is low, pancreatic cancer is the third most common cause of cancer death in the United States. Based on data from the Surveillance, Epidemiology, and End Results Program from 2009 to 2015, the overall 5-year survival rate for pancreatic cancer is 9.3%, and survival rates vary depending on the stage at which it is diagnosed. The 5-year survival rate for localized pancreatic cancer is 37.4%; when regional disease is present, the 5-year survival rate is 12.4%, and when distant metastatic disease is present, the 5-year survival rate is 2.9%.<sup>1</sup> Surgical intervention at an early stage is the treatment most likely to improve chances of survival; however, most cases of pancreatic cancer are detected at an advanced stage,<sup>1</sup> when surgical resection is not likely to be beneficial. Because of the increasing incidence of pancreatic cancer, along with improvements in early detection and treatment of other

types of cancer, it is estimated that pancreatic cancer may soon become the second-leading cause of cancer death in the United States.<sup>2</sup>

In 2019, an estimated 56,770 persons will be diagnosed with pancreatic cancer, and 45,750 persons will die of the disease.<sup>1</sup> About 85% to 90% of persons diagnosed with pancreatic cancer do not have known familial risk or genetic syndromes, 5% to 10% of persons have familial risk, and 3% to 5% of cases are due to inherited genetic cancer syndromes (such as Peutz-Jeghers syndrome). Familial pancreatic cancer is defined as kindred with at least 2 affected first-degree relatives; a person's degree of familial risk depends on the number of affected relatives.<sup>3-5</sup>

### REAFFIRMATION PROCESS

In 2004, the USPSTF reviewed the evidence on screening for pancreatic cancer in asymptomatic adults and issued a D recommendation. The USPSTF decided to use a reaffirmation deliberation process to update this recommendation. The USPSTF uses the reaffirmation process for existing A or D grade recommendations for which only a very high level of evidence would justify a change in the grade of the recommendation. In its deliberation of the evidence, the USPSTF considers whether the new evidence is of sufficient strength and quality to change its previous conclusions about the evidence.

### DETECTION

The USPSTF found no evidence on the accuracy of imaging-based screening tests (computed tomography scan, magnetic resonance imaging, or endoscopic ultrasonography) for detecting pancreatic cancer.

### BENEFITS OF DETECTION AND EARLY TREATMENT

The USPSTF found no evidence that screening for pancreatic cancer or treatment of screen-detected pancreatic cancer improves disease-specific morbidity or mortality or all-cause mortality. Based on the low incidence of pancreatic cancer in the general population, the uncertain accuracy of current candidate screening tests, and the poor prognosis for pancreatic cancer even when treated at an early stage, the USPSTF found adequate evidence to bound the benefits of screening for pancreatic cancer in asymptomatic adults as no greater than small. When direct evidence is limited, absent, or restricted to select

See related Putting Prevention into Practice on page 771.

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**This summary** is one in a series excerpted from the Recommendation Statements released by the USPSTF. These statements address preventive health services for use in primary care clinical settings, including screening tests, counseling, and preventive medications.

The **complete** version of this statement, including supporting scientific evidence, evidence tables, grading system, members of the USPSTF at the time this recommendation was finalized, and references, is available on the USPSTF website at <https://www.uspreventiveservicestaskforce.org/>.

**This series** is coordinated by Kenny Lin, MD, MPH, deputy editor.

A collection of USPSTF recommendation statements published in *AFP* is available at <https://www.aafp.org/afp/uspstf>.

populations or clinical scenarios, the USPSTF may place conceptual upper or lower bounds on the magnitude of benefit or harms.

#### HARMS OF DETECTION AND EARLY TREATMENT

The USPSTF found adequate indirect evidence to bound the magnitude of the harms of screening for pancreatic cancer and treatment of screen-detected pancreatic cancer as at least moderate, based on potential harms from false-positive results and the harms of treatment.

#### USPSTF ASSESSMENT

Using a reaffirmation deliberation process, the USPSTF concludes that there is no new evidence that warrants a change in the prior D recommendation and reaffirms its previous conclusion that the potential benefits of screening for pancreatic cancer in asymptomatic adults do not outweigh the potential harms.

#### Clinical Considerations

##### PATIENT POPULATION UNDER CONSIDERATION

This recommendation applies to asymptomatic adults not known to be at high risk of pancreatic cancer (*Table 1*). Therefore, this recommendation does not apply to persons at high risk of pancreatic cancer due to an inherited genetic

syndrome (e.g., Peutz-Jeghers syndrome, hereditary pancreatitis) or due to a history of familial pancreatic cancer.

#### ASSESSMENT OF RISK

Persons with certain inherited genetic syndromes or a history of familial pancreatic cancer are at high risk of pancreatic cancer. This recommendation does not apply to these high-risk populations.

Other factors such as new-onset diabetes, preexisting diabetes, older age, cigarette smoking, obesity, or a history of chronic pancreatitis increase risk to a lesser degree. The USPSTF considers asymptomatic persons who have these other risk factors part of the general population, and they are included in this recommendation.

#### SCREENING TESTS

The USPSTF does not recommend screening for pancreatic cancer in the general population using any method. Imaging-based methods, such as the computed tomography scan, magnetic resonance imaging, and endoscopic ultrasonography, have been studied as screening tests in trials of screening persons at high risk of pancreatic cancer due to inherited genetic syndromes or familial pancreatic cancer. There currently are no accurate, validated biomarkers for early detection of pancreatic cancer.<sup>6-11</sup>

TABLE 1

#### Screening for Pancreatic Cancer: Clinical Summary of the USPSTF Recommendation

Population	Asymptomatic adults (not known to be at high risk of pancreatic cancer)
<b>Recommendation</b>	Do not screen. Grade: D
<b>Risk assessment</b>	Persons with certain inherited genetic syndromes or a history of familial pancreatic cancer are at high risk of pancreatic cancer. This recommendation does not apply to these high-risk populations. Other factors such as new-onset diabetes mellitus, preexisting diabetes, older age, cigarette smoking, obesity, or a history of chronic pancreatitis increase risk to a lesser degree. Asymptomatic persons who have these risk factors are included in this recommendation.
<b>Screening tests</b>	The USPSTF does not recommend screening for pancreatic cancer in the general population using any method. Imaging-based methods, such as the computed tomography scan, magnetic resonance imaging, and endoscopic ultrasonography, have been studied as screening tests in trials of screening persons at high risk of pancreatic cancer due to inherited genetic syndromes or familial pancreatic cancer. There are currently no accurate, validated biomarkers for early detection of pancreatic cancer.
<b>Treatment or interventions</b>	Surgery (pancreaticoduodenectomy [known as the Whipple procedure] or total or distal pancreatectomy) is the generally recommended treatment for pancreatic cancer that is deemed to be resectable at the time of diagnosis. Neoadjuvant or adjuvant chemotherapy may be recommended, depending on the stage of cancer and other factors.

**Note:** For a summary of the evidence systematically reviewed in making this recommendation, the full recommendation statement, and supporting documents, go to <https://www.uspreventiveservicestaskforce.org/>.

USPSTF = U.S. Preventive Services Task Force.

**TREATMENT OR INTERVENTIONS**

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The “Other Considerations,” “Discussion,” “Reaffirmation of Previous USPSTF Recommendation,” and “Recommendation of Others” sections of this recommendation statement are available at <https://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/pancreatic-cancer-screening1>.

The **USPSTF** recommendations are independent of the U.S. government. They do not represent the views of the Agency for Healthcare Research and Quality, the U.S. Department of Health and Human Services, or the U.S. Public Health Service.

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