

# Evidence of healthcare strategies to tackle pancreatic cancer care challenges



TYPE  
STATUS

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## PROBLEM & OBJECTIVE

**PROBLEM** Pancreatic cancer is one of the most lethal tumours, with survival standing at 8% or less at 5 years, and it is the fourth cause of cancer death in Europe. Despite its important public health impact, no effective treatments exist, nor are there high-visibility research efforts to improve care.

**OBJECTIVE** iPAAC has placed special emphasis on the so-called neglected cancers, defined as non-rare cancers with moderate incidence and low survival. The biological aggressiveness and the lack of effective therapeutic responses make pancreatic cancer the best example of this group of malignancies, but the term also encompasses tumours of the brain, liver, and central nervous system, among others. We aimed to review all healthcare strategies implemented to build healthcare systems' capacity for providing high-quality pancreatic cancer care and specifically to describe their design and implementation.

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## KEY COMPONENTS / STEPS

- A systematic literature review was conducted based on articles published between January 2000 and December 2018 that evaluated healthcare system strategies to tackle pancreatic cancer care.
- Included articles were studies describing interventions that consisted of plans, strategies, or healthcare system interventions for improving the quality of pancreatic cancer care and/or patients' access to specialised services (e.g. implications of using patient volumes, variations on costs, management of complications outside expert centres)
- The research focus was on treatments provided with curative intent.
- The selected strategies were implemented by health authorities or by other public administration bodies or private institutions as long as they targeted the healthcare system as a whole.

## KEY CONTEXTUAL FACTORS

- Scarce and non-specific symptomatology of pancreatic cancer leads to most cases being diagnosed only in advanced stages. Late diagnosis significantly limits the available treatment options.
- Pancreatic is the fourth cause of cancer death in Europe, but is expected to rise to the second in the USA by 2030, surpassing mortality from cancers of the breast, prostate, and colon and rectum (1).
- Pancreatic surgery plus perioperative therapy (current standard: adjuvant chemotherapy) is the only potentially curative treatment, but just 20% of patients—at most—are candidates for this approach (2).
- Pancreatic surgery is among the most technically complex and risky interventions that a patient can undergo.
- Scientific evidence supports that centres performing more surgeries with a curative intent achieve better perioperative outcomes.

## MAIN IMPACTS / ADDED VALUE

- 48 articles were included in the review. Healthcare system strategies for tackling pancreatic cancer fell into three broad categories: A) centralisation of pancreatic cancer surgery; B) external systems for quality assessment of clinical outcomes; and C) accreditation of centres and professionals.
- Centralisation of pancreatic cancer surgery is by far the most commonly applied healthcare strategy for improving patient outcomes. Centralisation was framed along three models: designation of providers, establishment of minimum volume of patients, and policy recommendations.
- Assuming that reference centres are high volume centres (which is a proxy indicator for greater quality of care), three elements differentiate these from low-volume centres: (a) availability of highly advanced technology and infrastructures, combined with extensive service coverage (e.g., full-time specialists); (b) advanced care processes based on expert multidisciplinary teams that include consistent and specialised tumour boards and updated clinical protocols, often based in hepatopancreatobiliary (HBP) units; and (c) highly specialised ecosystem when a centre manages different complex diseases, and central specialties like radiology develop a high level of specialisation in addition to clinicians/surgeons for one pathology or organ.
- Population-based cancer registries, clinical audits and quality improvement programmes were the three systems used for evaluating the quality of pancreatic cancer surgery.
- Three national experiences (Japan, Australia and New Zealand) and one at the European level stand out with regard to accreditation of professional competencies. Regarding the accreditation of centres, Germany and USA's cases stand out in that different, optional accreditation systems coexist.

## LESSONS LEARNED

- Considering the alarming situation and the challenges posed by pancreatic cancer, realistic policy approaches such as centralisation are required. Pancreatic cancer patients' best hope in the short to medium term resides in accessing diagnostic procedures and treatment, provided by experienced healthcare professionals in well-equipped reference centres.
- The implementation of national reference centres for pancreatic cancer, centralising surgical cases, plus external, population-based quality assessment emerged as essential conditions underpinning other policy goals and measures.
- The three strategies highlighted, alone or in combination, have ushered in relevant changes in the reorganisation of healthcare services and in the specialisation of professionals and centres. However, their integration can increase the overall effectiveness of the healthcare system intervention, compensating some of the shortcomings of each if implemented alone, and improving the comprehensiveness of the system response to pancreatic cancer.

## REFERENCES & DOCUMENTATION

- Published article submitted
- iPAAC Report:
  - (1) Rahib L, Smith BD, Aizenberg R, Rosenzweig AB, Fleshman JM, Matrisian LM. Projecting cancer incidence and deaths to 2030: the unexpected burden of thyroid, liver, and pancreas cancers in the United States. *Cancer Res* 2014;74:2913–2921.
  - (2) Kleeff J, Korc M, Apte M, La Vecchia C, Johnson CD, Biankin AV, et al. Pancreatic cancer. *Nat Rev Dis Primers* 2016;2:16022.

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