



LETTER TO THE EDITOR

From recommendation to requirement: why multidisciplinary governance and centralization must become global standards in penile cancer care

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We read with great interest the recent publication of the updated Swedish national guidelines on penile cancer [1]. The authors are to be commended for presenting a rigorously structured and nationally coherent framework for the management of this rare, but clinically demanding malignancy. Beyond their clinical recommendations, these guidelines stand out for a more consequential reason: they define multidisciplinary governance and centralization of care as mandatory structural components rather than optional quality measures.

Penile squamous cell carcinoma (PSCC) represents a paradigmatic disease in which oncologic and functional outcomes are closely linked to provider experience, institutional volume, and coordinated multidisciplinary decision-making [2]. Nevertheless, care delivery across many health systems remains fragmented. The Swedish guidelines offer a contrasting model by mandating national multidisciplinary tumor board (MTB) review for all patients with invasive disease, penile intraepithelial neoplasia (PeIN), and recurrence, combined with full surgical centralization to two national referral centers. Importantly, these elements are presented as defining standards of care rather than contextual recommendations [1].

In an international context, the Swedish approach represents the most prescriptive and consistently implemented model currently embedded in a national guideline. The German S3-guideline mandates MTB discussion only for selected advanced clinical scenarios and does not impose structural centralization [3]. The EAU-ASCO guideline provides a thorough and balanced analysis of centralization and multidisciplinary care, but ultimately frames both as strongly advisable rather than obligatory [4]. By contrast, the NCCN (National Comprehensive Cancer Network) Clinical Practice Guidelines in Oncology provide highly detailed, algorithm-driven recommendations for diagnosis and treatment, yet largely refrain from defining structural requirements such as mandatory MTB or centralized care pathways [5].

What makes the Swedish model particularly compelling is its close alignment with expert-driven quality standards. In a recent international Delphi consensus involving high-volume penile cancer specialists, a Pentafecta of quality indicators for primary surgical management was defined [6, 7]. Two of these criteria

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are directly relevant in this context: mandatory access to MTBs for decision-making on perioperative systemic therapy and primary surgical treatment at centers managing at least 15 PSCC cases per year. This volume threshold was deliberately defined as the lowest common denominator acceptable to an international expert panel, despite evidence supporting higher optimal caseloads, and reflects cumulative clinical experience with the structural limitations of decentralized care [6, 7].

Viewed through this lens, the Swedish guideline can be interpreted as the first national-level implementation of expert consensus principles that had previously been articulated, but not operationalized. Centralization is no longer justified solely by statistical associations with survival. Rather, it is framed as an enabling condition for reproducible process quality, including organ-preserving surgery, standardized nodal staging, timely integration of systemic therapy, structured follow-up, and registry-based quality control. The implications extend beyond Sweden. Germany illustrates the consequences of partial implementation. Despite comprehensive national guidelines and broad professional agreement on the value of specialization, PSCC care remains largely decentralized [2, 8]. Registry analyses and survey data demonstrate persistent deficits in guideline adherence, particularly in lymph node management and perioperative systemic therapy [9]. At the same time, an unstructured de facto centralization toward university hospitals has emerged, accompanied by wide inter-institutional variability in case volume and expertise [10]. This hybrid model lacks transparency, accountability, and equity.

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Table 1. Multidisciplinary tumor boards and centralization of care in penile cancer: comparison of international guidelines and expert consensus.

Guideline or consensus framework	Multidisciplinary tumor board	Centralization of care	Conceptual position
Swedish National Guideline (2025) [1]	Mandatory national multidisciplinary treatment conference for all cases, including PeIN and recurrence	Surgery centralized to two national referral centers	Centralization and multidisciplinary defined as cornerstones of standard care
German S3 Guideline (2020) [3]	Explicitly required for metastatic disease and multimodal treatment; defined as a quality indicator	No mandatory centralization; referral to specialized centers encouraged	Emphasizes process quality in advanced disease without system-level mandates
EAU-ASCO Guideline (2025) [4]	Multidisciplinary management defined as a core principle throughout the care pathway	Centralization analyzed and strongly supported, but not mandated	Strategic endorsement of centralized models within flexible national contexts
NCCN Guidelines (Version 1.2026) [5]	No explicit requirement	No explicit requirement	Comprehensive, algorithm-based therapeutic guidance without formal mandates regarding multidisciplinary governance or centralization
Expert Consensus (Pentafecta, 2023) [6, 7]	Mandatory access to interdisciplinary tumor boards for systemic therapy decisions	Minimum annual case volume required as a quality criterion	Translates expert experience into measurable structural quality indicators

The Swedish experience also highlights a frequently underestimated point. Centralization is not merely a surgical issue. It is a prerequisite for sustainable multidisciplinary expertise, national registry governance, clinical research, and continuous quality improvement. Without concentration of care, national MTBs and high-quality outcome monitoring are difficult to maintain at scale. By contrast, centralized structures allow expertise to be institutionalized rather than remaining person-dependent. Concerns regarding patient accessibility are often raised. The Swedish model offers a pragmatic solution by separating decision-making from physical location. National MTBs ensure universal access to expert consensus, while regional collaboration allows components of treatment and follow-up to be delivered closer to patients' homes when appropriate.

Taken together, the Swedish guidelines represent more than a national document. They provide a proof-of-principle that mandatory multidisciplinary governance and centralized surgical care are feasible, scalable, and clinically meaningful in penile cancer. When considered alongside international guidelines and expert-derived quality frameworks such as the Pentafecta, a clear convergence emerges between evidence, expert consensus, and health system design (Table 1). We believe it is time to translate this convergence into harmonized international structural standards. For rare and complex malignancies such as PSCC, MTBs and defined minimum institutional volumes should no longer be framed as contextual adaptations, but as core requirements of guideline-concordant care. Aligning national guidelines around these principles would represent a decisive step toward equity, transparency, and consistently high-quality outcomes worldwide.

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