


Multidisciplinary teams for the proper management of patients with genitourinary tumors: When topics set scientific societies' agenda

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Abstract

Introduction: The multidisciplinary management of oncologic patients is identified as the bottom line element of quality in tumor care.

Methods: In 2015, 7 Italian scientific societies representing the specialists involved in the diagnosis and treatment of genitourinary tumors joined efforts in the Italian uro-oncologic multidisciplinary teams (MDTs) project. The aims were to promote the reorganization of genitourinary cancer care, switching to a multidisciplinary approach, reach a consensus on the core elements for the setup of MDTs in genitourinary oncology, and support health policy makers and managers in remodeling of the assistance and care of uro-oncologic patients on a national level.

Results: The first activity was the setup of 5 working groups, given the task of exploring selected topics: general principles, organization of MDTs, minimal requirements, economic evaluation, and relations with authorities. The groups participated in the writing of a document that was approved by the scientific societies and published on their web sites. Moreover, a few items summarizing the extensive document were approved in the first MDT Consensus Conference held in Milan in December 2015.

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Conclusions: The experience of this initial phase led to the opening of the team to other professionals and societies, in line with a correct management of patients with genitourinary tumors, which need a multidisciplinary as well as a multiprofessional approach with emerging techniques and procedures, and with a new project work package on genitourinary paths of care and indicators.

Keywords

Genitourinary tumors, multidisciplinary approach, multidisciplinary team, consensus conference, statements

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Introduction

According to the definition of the European Partnership for Action Against Cancer (EPAAC),¹ “multidisciplinary teams (MDTs) are an alliance of all medical and health care professionals related to a specific tumor disease whose approach to cancer care is guided by their willingness to agree on evidence-based clinical decisions and to co-ordinate the delivery of care at all stages of the process, encouraging patients in turn to take an active role in their care.” This statement results from the evaluation of the benefits of multidisciplinary management on outcome and survival²⁻¹⁰ and the agreement on the multidisciplinary approach as a key element in tumor care.^{11,12}

In 2015, 7 Italian scientific societies representing urologists, medical oncologists, and radiation oncologists (Associazione Italiana di Oncologia Medica [AIOM], Italian Association of Medical Oncology; Associazione Italiana di Radiobiologia [AIRB], Italian Association of Radiobiology; Associazione Italiana di Radioterapia Oncologica [AIRO], Italian Association of Oncologic Radiotherapy; Associazione degli Urologi Ospedalieri [AUrO], Association of Hospital-based Urologists; Collegio dei Primari Oncologi Medici Ospedalieri [CIPOMO], Board of Medical Oncology Directors; Società Italiana di Urologia [SIU], Italian Society of Urology; Società Italiana di Urologia Oncologica [SIUrO], Italian Society of Oncologic Urology) launched the uro-oncologic MDTs project. The aims were to promote the reorganization of genitourinary cancer care according to the multidisciplinary approach, reach a consensus on the core elements for the setup of MDTs in genitourinary oncology, and support health policy makers and managers in remodeling the care of genitourinary oncologic patients on a national level.

This article describes the process that led to the definition and approval of 11 statements on 5 topics related to multidisciplinary management by a consensus of experts.

Methods

The Executive Board of the uro-oncologic MDTs project, composed of the AIOM, AIRB, AIRO, AUrO, CIPOMO, SIU, and SIUrO presidents, formed multidisciplinary and

multiprofessional groups with representatives of the societies tasked to explore 5 identified topics relevant in the multidisciplinary management of genitourinary tumors: 1) general principles, 2) MDT organization, 3) minimal requirements, 4) economic considerations, and 5) relations with the authorities (see Tables 2-7 for composition). Discussion took place in meetings, conference calls, and by Email from May to December 2015. The groups analyzed the existing literature, national and international scenarios, legal and social regulations, and the scientific view of the single societies.

A starting point for the discussion in all the groups was the criteria described by Valdagni et al.¹³ for Prostate Cancer Units, the applicability of which was evaluated in the broader genitourinary context and in different health situations (i.e., comprehensive cancer centers, university hospitals, general and local hospitals).

The groups wrote an extensive document and proposed a few statements aimed to capture the essence of the explored topics. The document was first commented upon by the boards of the scientific societies, then circulated inside the groups, and eventually uploaded in the web sites of the scientific societies for dissemination.

The statements proposed by the groups were presented at the uro-oncologic MDT first Consensus Conference (Milan, December 16–17, 2015), where clinicians identified by the scientific societies discussed, modified, and eventually approved the statements (approval by at least 85% majority of votes).

Results

The 11 statements approved in the 2015 Consensus Conference are listed in Table 1. Below is a summary of the work of each group.

General principles

Although EPAAC considers MDT a fundamental approach in oncologic care,¹ Cancer “and” MDTs are mandatory in several countries such as Belgium, France, and the United Kingdom, and in the literature MDTs in genitourinary tumors seem to impact diagnostic and therapeutic procedures, little is known on objective proposal of

Table 1. Statements proposed by the groups and approved at the 2015 Consensus Conference.

Group 1: General principles	Statement 1	The main aim of the initiative (Editor's note: MDTs in urologic oncology project) lies in facilitating the setup of multidisciplinary and multiprofessional teams, and in stimulating a cultural movement of multidisciplinary discussion and sharing that involves also the patients and their advocacy groups. A uro-oncologic MDT must contribute mainly to the definition and activation of the best path of care for the patient in the shortest time (external goal) and at the same time to the continuous education of the members (internal goal). Aims of the uro-oncologic MDT are to improve the diagnostic–therapeutic applicability, make the available therapies accessible, improve patients' quality of life and compliance, and optimize the use of resources.
	Statement 2	The fundamental tool to reach these goals is the formalization and periodic update of the paths of care for single uro-oncologic tumors based on national and international guidelines, adapted to local scenarios.
	Statement 3	The task of an MDT is to identify, formalize, and use general and specific indicators to measure the efficacy and efficiency of each path of care, easily traceable and evaluable in internal and external audits.
Group 2: Organization	Statement 4	The organization of MDTs needs to be defined in a clear and explicit way, with statements on all the management-related aspects. This means that the participants' job profiles, type of activities, and means of communication that MDTs intend to use must be described. It is of paramount importance to identify the person in charge of coordinating clinical–scientific and organizational activities.
	Statement 5	MDTs must identify the ways of entering the path of care, communication, and being taken in charge with respect to the clinicians working in the same hospital or elsewhere.
Group 3: Minimal requirements	Statement 6	Uro-oncologic MDTs must have adequate personnel and infrastructure to manage the paths of care of each genitourinary tumor.
	Statement 7	Scientific societies involved in the writing of this document will indicate the minimum caseloads necessary for each type of genitourinary tumor based on the existing evidence or, if not available, on consensus among experts.
	Statement 8	MDTs must have a core team composed of the professionals mainly involved in the path of care of patients with genitourinary tumors (at least a urologist, a medical oncologist, and a radiation oncologist) and a multidisciplinary and multiprofessional non-core team that can be called upon to participate in the path of care upon request of the core team. A member of the core team must be appointed director or responsible for coordinating clinical–scientific activities.
Group 4: Economic impact	Statement 9	It is reasonable to expect that through the definition of paths of care MDTs should contribute to the improvement of applicability and quality of diagnostic, therapeutic, and follow-up procedures and impact on reducing costs.
Group 5: Relations with authorities	Statement 10	The scientific societies involved in this project must interact with national and regional decision-makers in order to have them acknowledge the role and the competence of the MDTs through the release of legislation that accepts and facilitates their activities.
	Statement 11	The documents approved by the scientific societies involved in this project are the bottom line for the interaction of MDTs with hospital administrations to define the local applicability through internal paths or with collaborations within the regional networks.

MDT, multidisciplinary team.

options, outcomes, patient compliance, and specialists' satisfaction.²⁻¹⁸ The formalization of MDTs may contribute in evaluating the multidisciplinary approach at a national level in different health contexts and in producing ready-to-use recommendations for the establishment of MDTs.

The definition of disease-oriented paths of care is instrumental to reach MDTs' goals, which are (1) to improve the efficacy and efficiency of diagnostic and therapeutic procedures, (2) to make optimally selected therapies accessible, (3) to improve patients' quality of

life and compliance to treatments, and (4) to optimize the use of resources. The efficacy of the identified paths of care and the efficiency of the MDTs must be evaluated with both general and disease-specific indicators and audits. It is therefore crucial to collect data on therapies, complications, and outcomes systematically. It is also important to offer patients easy, detailed, and updated written information on all the aspects of their disease, including rehabilitation programs, psychological support, and advocacy groups, and to measure quality of life and compliance to treatments with questionnaires.¹³

Table 2. MDTs in urologic oncology project: Working groups (Coordinator: Giario Conti).

Topics	Coordinators
General principles	Sandro Barni
MDT organization	Orazio Caffo
Minimal requirements	Sergio Bracarda, Alessandro Volpe
Economic evaluation	Giacomo Novara
Relations with the authorities	Giordano Beretta, Maurizio Brausi

MDT, multidisciplinary team.

Table 3. General principles working group.

Sandro Barni	CIPOMO delegate
Renzo Colombo	SIUrO delegate
Rolando M. D'Angelillo	AIRO delegate
Vincenzo Ficarra	SIU delegate
Claudia Mucciarini	Outsider
Sara Ramella	AIRO delegate
Roberto Sabbatini	AIOM delegate
Sebastiano Spatafora	AUrO delegate

AIOM, Associazione Italiana di Oncologia Medica; AIRO, Associazione Italiana di Radioterapia Oncologica; AUrO, Associazione degli Urologi Ospedalieri; CIPOMO, Collegio dei Primari Oncologi Medici Ospedalieri; SIU, Società Italiana di Urologia; SIUrO, Società Italiana di Urologia Oncologica.

Table 4. MDT organization working group.

Alessandro Antonelli	SIU delegate
Orazio Caffo	AIOM delegate
Mario A. Clerico	CIPOMO delegate
Giario Conti	SIUrO/AUrO delegate
Barbara Jereczek	AIRO/AIRB delegate
Tiziana Magnani	Outsider
Carlo Patriarca	Outsider
Giuseppe Petralia	Outsider

AIOM, Associazione Italiana di Oncologia Medica; AIRB, Associazione Italiana di Radiobiologia; AIRO, Associazione Italiana di Radioterapia Oncologica AUrO, Associazione degli Urologi Ospedalieri; CIPOMO, Collegio dei Primari Oncologi Medici Ospedalieri; MDT, multidisciplinary team; SIU, Società Italiana di Urologia; SIUrO, Società Italiana di Urologia Oncologica.

Table 5. Minimal requirements working group.

Filippo Alongi	AIRO delegate
Stefano Arcangeli	SIUrO delegate
Giuseppe Argento	Outsider
Sergio Bracarda	AIOM delegate
Beatrice Detti	AIRB delegate
Giovanni L. Pappagallo	Outsider
Giuseppe Procopio	AIOM delegate
Donata Villari	SIU delegate
Alessandro Volpe	SIU delegate

AIOM, Associazione Italiana di Oncologia Medica; AIRB, Associazione Italiana di Radiobiologia; AIRO, Associazione Italiana di Radioterapia Oncologica; SIU, Società Italiana di Urologia; SIUrO, Società Italiana di Urologia Oncologica.

Table 6. Economic evaluation working group.

Giacomo Carteni	AIOM delegate
Giacomo Novara	SIU delegate
Gianmauro Numico	CIPOMO delegate
Giuseppe Sanguineti	SIUrO delegate
Riccardo Santoni	AIRO delegate

AIOM, Associazione Italiana di Oncologia Medica; AIRO, Associazione Italiana di Radioterapia Oncologica; CIPOMO, Collegio dei Primari Oncologi Medici Ospedalieri; SIU, Società Italiana di Urologia; SIUrO, Società Italiana di Urologia Oncologica.

Table 7. Relations with the authorities working group.

Giordano Beretta	AIOM delegate
Maurizio Brausi	SIU delegate
Renzo Corvò	AIRB delegate
Mario Del Vecchio	Outsider
Luisa Fioretto	CIPOMO delegate
Pierpaolo Graziotti	AUrO delegate
Stefano M. Magrini	AIRO delegate
Tommaso Prayer Galetti	SIUrO delegate
Angela Ribecco	CIPOMO delegate
Antonio Rizzotto	SIU delegate
Giovanni Ucci	CIPOMO delegate

AIOM, Associazione Italiana di Oncologia Medica; AIRB, Associazione Italiana di Radiobiologia; AIRO, Associazione Italiana di Radioterapia Oncologica; AUrO, Associazione degli Urologi Ospedalieri; CIPOMO, Collegio dei Primari Oncologi Medici Ospedalieri; SIU, Società Italiana di Urologia; SIUrO, Società Italiana di Urologia Oncologica.

Considering MDT as the ideal setting for interdisciplinary education and cross-fertilization, MDT meetings should be accredited as continuing medical education events.

Group on MDT organization

Considering the significantly different care contexts, it is essential to identify the core elements that may facilitate multidisciplinary working and MDT setup.¹⁹⁻²⁷

As stressed in reference 13, particular attention must be paid to the following:

- 1) Identification of MDT members. All the specialties involved in the path of care must be represented. Formalized collaborations must be considered to

complete the paths of care. Specialists must be chosen among those who dedicate a considerable amount of time to genitourinary tumors. A case manager appointed to identify the cases and coordinate processes and activities and a care manager designated to navigate the patient in the paths of care should also be named.

- 2) Identification of the MDT coordinator, responsible for the clinical and scientific aspects, for organizing and monitoring activities and paths of care.
- 3) Organization of MDT meetings. It is important to consider the case load to decide the type of activities to implement, with (synchronous or in sequence multidisciplinary clinics) or without the patient (tumor boards), procedures (cases to be referred to MDT, documents necessary for the meeting, participation of MDT members), and processes (meeting reporting, communication to the patient, general practitioners, or other specialists).
- 4) Extensive data collection.
- 5) Patient information sheets.

Group on minimal requirements

Minimal requirements can be transversal or disease-specific. Some are derived from reference 13, although the article is focused on prostate cancer.

MDTs can belong to different health contexts and work in separate buildings. MDTs are composed of a core team of urologists, radiation oncologists, and medical oncologists who dedicate a defined amount of time to the care of genitourinary tumor patients, participate in the MDT meetings on a regular basis, and attend continuing medical education on genitourinary tumors; and other specialists who may vary depending on the disease and must participate in the MDT meetings upon request by the core team. A report of each meeting with names of the participants and list of cases discussed must be prepared.

Clinics for genitourinary tumor patients must be held by MDT members who are also responsible for administering treatments and running observational programs according to national and international guidelines. Adjuvant, support, or palliative therapies and psychological counseling can be delivered by specialists formally collaborating with MDTs. Paths of care can be completed through formalized collaboration with other institutions. Follow-up must be supervised by core team specialists responsible for the treatment or by specialists formally collaborating with MDTs. Written information for patients must be available.

Group on economic considerations

Articles dealing with the costs of MDTs were searched in the literature. Out of the 895 records, only 10 articles were

considered interesting with respect to efficacy, reproducibility, costs, and impact on survival.^{4,14,15,28-32} Most articles refer to the experience in prostate cancer multidisciplinary management and have little to add to genitourinary tumors. MDTs seem to affect changes in the diagnostic or therapeutic strategy and survival most significantly.^{4,14,15,28-32} Further studies are needed to assess the impact of MDTs on costs, also considering emerging technologies, inappropriate staging, procedures, and therapies.

Group on relations with authorities

Considering the incidence, prevalence, and death rates of genitourinary tumors, these malignancies must be managed in the most appropriate way. The improvements attributed to MDTs, paths of care, and evaluation of case-loads led to the setup and promotion of breast cancer units.³³⁻³⁶ More recently, attention was paid to prostate cancer.¹³ It is time now to explore other genitourinary tumors (bladder, kidney, testis, penis).

Up to December 2015, the group found no national resolutions for genitourinary tumors (in general or disease-specific). The only data depicting the Italian scenario regarding the multidisciplinary management of patients with genitourinary tumors came from a survey proposed in 2014 by AIOM, the main Italian scientific society representing medical oncologists. The questionnaire reached 363 medical oncology units, of which 49 replied. A total of 61% of units participated in genitourinary MDTs and had weekly or fortnightly meetings discussing between 25 and 600 cases. Most MDTs were participated in by urologists, medical oncologists, and radiation oncologists (in some cases consultants not working in the hospital). In 57% of MDTs, other professionals, such as pathologists, nurses, or experts in nuclear medicine, joined in. A secretary was present in only 10% of MDTs, while the case manager was rarely part of the team. In more than 60% of MDTs, there was no database.³⁷

The added value of MDTs is recognized only if the patient is present, with the National Health System reimbursing a higher amount for multidisciplinary clinics than for monospecialist consultations. Only in 15% of settings is time dedicated to MDT considered protected and counts in the definition of the workload. This survey has 2 main limitations: the low number of respondents and the fact that those who responded were the most interested in the issue of genitourinary tumors and MDTs.³⁷

Discussion

For the first time in Italy, 7 scientific societies joined efforts and collaborated in such an articulated project, trespassing the specialty-related boundaries and the intersociety rivalries. The synergy among all the stakeholders was triggered by the acknowledged importance of MDTs in

genitourinary cancers, the need for interdisciplinary collaboration to manage patients with these malignancies, and considering the poor response rates registered by the AIOM survey referred to in the Methods, to implement strategies to promote a structured, more formalized, less discretionary multidisciplinary approach. Great effort was made to include in the project all the societies representing the same specialists (AIOM and CIPOMO for medical oncologists; AIRB and AIRO for radiation oncologists; AUrO and SIU for urologists; SIUrO for all specialists) in the attempt to have the largest consensus in the uro-oncologic community.

The decision to have interdisciplinary groups focusing on general principles, MDT organization, minimal requirements, economic considerations, and relations with the authorities allowed us to explore these relevant topics considering the experience of an international initiative reported in the literature (the Prostate Cancer Units Initiatives in Europe, promoted by the European School of Oncology, endorsed by the patient advocacy Europa Uomo and supported by several European scientific societies)¹³ but still focusing on the peculiarities of the Italian scenario. This allowed us to identify the most crucial needs at a national level and upon this evaluation the scientific societies participating in the uro-oncologic MDTs project launched the second phase of the project with disease-specific working groups developing minimal requirements, standards and items, paths of care, and quality indicators.

The project, which started as the collaboration of the scientific societies representing urologists, medical oncologists, and radiation oncologists, intends to involve all the specialists participating in the paths of patients with genitourinary tumors (pathologists and imaging specialists as first step) and their societies (Società Italiana di Radiologia Medica - SIRM, the Italian Society of Radiology; Società Italiana di Anatomia Patologica e Citologia Diagnostica - SIAPEC, the Italian Society of Pathology; Associazione Italiana di Medicina Nucleare - AIMN, the Italian Association of Nuclear Medicine, as the first societies contacted), and have their representatives discuss genitourinary requirements, paths of care, and indicators. Opening to other medical professionals and scientific societies is in accordance with the multidisciplinary as well as multiprofessional management that genitourinary tumor patients need.

The scientific societies involved in the project, who represent over 7,000 specialists, should now interact with national and regional regulatory bodies to promote MDTs for genitourinary tumors from both qualitative and organizational points of view, aiming at a positive impact on efficacy and efficiency. The document prepared by the 5 groups must be the bottom line for the discussion with national and regional bodies to achieve regulations formalizing the MDTs in genitourinary oncology and the adoption of shared multidisciplinary paths of care for genitourinary tumors. At

the same time, standards and items, paths of care, and quality indicators should be adopted on a national basis to offer genitourinary cancer patients optimal care.

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Declaration of Conflicting Interest

The authors declare that there is no conflict of interest.

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