Clinical and Translational Radiation Oncology 12 (2018) 28–33

Contents lists available at ScienceDirect

Clinical and Translational Radiation Oncology

journal homepage: www.elsevier.com/locate/ctro

Original Research Article

Helping patients make informed decisions. Two-year evaluation of the Gustave Roussy prostate cancer multidisciplinary clinic

Anna Patrikidou [a,1], Pierre Maroun [b,1], Jean-Jacques Patard [c], Hervé Baumert [d], Laurence Albiges [a], Christophe Massard [a], Yohann Loriot [a], Bernard Escudier [a], Mario Di Palma [a], Julia Arfi-Rouche [e], Laurence Rocher [f], Zahira Merabet [g], Alberto Bossi [b], Karim Fizazi [a], Pierre Blanchard [b,*]

[a] Gustave Roussy, Université Paris-Saclay, Département de médecine oncologique, F-94800 Villejuif, France
[b] Gustave Roussy, Université Paris-Saclay, Département de Radiothérapie Oncologique, F-94800 Villejuif, France
[c] Hôpital Bicêtre, Service d'Urologie, F-94270 Le Kremlin-Bicêtre, France
[d] Hôpital Saint-Joseph, Service d'Urologie, F-75014 Paris, France
[e] Gustave Roussy, Université Paris-Saclay, Département d'imagerie médicale, F-94800 Villejuif, France
[f] Hôpital Bicêtre, Service de Radiologie, F-94270 Le Kremlin-Bicêtre, France
[g] Gustave Roussy, Université Paris-Saclay, Département de biologie et pathologie médicales, F-94800 Villejuif, France

ARTICLE INFO

Article history:
Received 20 May 2018
Revised 28 June 2018
Accepted 4 July 2018
Available online 6 July 2018

Keywords:
Prostate cancer
Multidisciplinary
Radiotherapy
Surgery
Shared decision-making

ABSTRACT

Objectives: The initial treatment decision for newly diagnosed non-metastatic prostate cancer is complex. Multiple valid approaches exist, without a clear and absolute consensus for every clinical scenario, and therefore specialist opinions may vary. Multidisciplinary consultations focusing on shared decision-making aim to provide an apposite tool for the initial treatment decision. We have evaluated the first two years of activity of the Gustave Roussy Prostate Cancer Multidisciplinary Clinic (PCMC), dedicated to the initial decision-making for non-metastatic prostate cancer.

Methods: PCMC consists of two consecutive specialist consultations with a urological surgeon and a radiation oncologist, followed by a dedicated Tumor Board discussion. A study questionnaire was addressed to all PCMC patients via postal mail. Medical notes and questionnaire responses of 195 eligible patients were analyzed.

Results: The questionnaire response rate was 69% (134 patients). Complete satisfaction rate was high (114 of 118 responders, 97%). Patients were offered new treatment options in 55% of cases, and felt better informed in 98% (122 of 125 responders). The double consultation was considered useful (124 of 129 responders, 96%). Reported feeling of active participation was significantly elevated (117 of 131 responders, 89%), while 46% of patients (57 of 125) modified their decision on the management of their prostate cancer following their PCMC consultation.

Conclusions: The experience of a multidisciplinary consultation in the initial management of non-metastatic prostate cancer renders high patient satisfaction, improves their appreciation of feeling better informed, promotes active participation and shared decision-making and strongly influences their final decision.

Introduction

The complexity of treatment strategies pertaining to non-metastatic prostate cancer (CaP) is well recognized, necessitating a co-operation between specialist colleagues, but also a significant input from the patients themselves [1]. The dramatic changes in incidence, diagnostic stage and mortality in the last 30 years resulted in modification of medical attitudes and development of a variety of management options (surgery, external-beam radiotherapy, brachytherapy, cryotherapy, high-intensity focused ultrasound, hormonal therapy, active surveillance, watchful waiting). For localized CaP there does not exist a clearly established, universally applied advantage of a given treatment modality over the others; treatment decision is an intricate process that ought to include risk assessment and precise disease extent and topography, amongst other factors.

* Corresponding author at: Gustave Roussy, Université Paris-Saclay, Département de radiothérapie, 114 rue Edouard Vaillant, F-94800 Villejuif, France.
E-mail address: pierre.blanchard@gustaveroussy.fr (P. Blanchard).
[1] Co-primary authors.

https://doi.org/10.1016/j.ctro.2018.07.001
2405-6308/

A need for multidisciplinary involvement and shared decision-making therefore evolved, highlighting the cardinal importance of patient education.

The Gustave Roussy Prostate Cancer Multidisciplinary Clinic (PCMC), inaugurated in March 2011, is a comprehensive weekly clinic for localized or locally advanced CaP patients requesting a second opinion, based on the model of shared decision-making. It offers expert specialist care in a collaboration between Gustave Roussy and the urological surgical teams of the Hôpital Bicêtre and Hôpital Saint Joseph, Paris, France. Access to the PCMC is via general practitioner or specialist referral, or at the patient's own initiative.

This specialist clinic offers patients the opportunity to successively consult with a radiation oncologist and a urological surgeon, part of a dedicated 5-member team. Consultation time for each specialist is 45 min. All cases are discussed at the Genitourinary (GU) Tumor Board on the same day, with the further participation of medical oncologists, specialist and interventional radiologists and histopathologists. The final treatment plan is established at this multidisciplinary meeting. Patients were informed of the Tumor Board recommendation during a follow-up clinic or telephone consultation.

We consider the concept and design of this PCMC to be adapted to the specific setting of localized and locally advanced CaP. We present here an evaluation of the first two years of the Gustave Roussy PCMC activity.

Methods

Patient cohort

All patients seen in the PCMC clinic were included in the initial register; the following exclusion criteria were applied for the final cohort analysis, aiming for bias elimination:

- Absence of histopathological confirmation of prostatic adenocarcinoma.
- Pre-treated patients.
- Patients not specifically addressed to the PCMC Clinic, seen by a single specialist in regard with a previously established treatment plan.
- Patients belonging to Gustave Roussy staff.

Data collection

The data source was the hospital electronic and paper records and a dedicated questionnaire. Data were collected in a dedicated Excel-based database (Microsoft Inc, Washington, USA). Table 1 presents an outline of the recorded data. The patient socioeconomic status was scored according to the French 2003 classification of Professions and Socio-Professional Categories [2]. All PSA measurements and biopsies were performed outside Gustave Roussy prior to the consultation date. The weight and volume of the prostatic gland were estimated based on MRI, CT, ultrasound imaging and clinical examination. The T.N.M. classification was according to the 7th AJCC edition [3]. The clinical T stage was scored based on the information in the medical notes; since the precise T2 stage scoring was available for only a small subset of patients, it was not included in the analysis. Apical involvement and capsular and seminal vesicle involvement were scored based on available information (clinical examination, imaging, localization of positive cores).

This study was designed as an early service evaluation, and therefore of a short follow-up, so no long-term data on oncologic outcome could be retrieved.

Table 1
Collected data/analysis variables.

Personal data	Marital status
	Socio-economic status
Consultation details	Consultation year
	Initial/s opinion consultation
	Consultation order (surgery/ radiotherapy)
	Consulting urologist
	Consulting radiotherapist
Comorbidities	Cardiovascular disease
	Previous TURP
	Family history of prostate cancer
LUTS/sexual dysfunction	IPSS score
	Presence of nocturia
	Presence of hesitancy
	Presence of terminal dribbling
	Presence/quality of erection
PSA	PSA value
Prostate biopsy: core number	Total number of cores
	Total number of positive cores
	Number of positive cores in the right lobe
	Number of positive cores in the left lobe
Prostate biopsy: length	Total length of biopsy cores
	Total length of tumour
	Total length of tumour in the right lobe
	Total length of tumour in the left lobe
Gleason score	Total Gleason score
	Primary grade of Gleason score
	Secondary grade of Gleason score
Prostate Weight/Volume	Estimated weight & volume of the prostate gland
TNM classification	Clinical T stage
Imaging	MRI performed
	Local extension on MRI
	Pathological lymph nodes on MRI
	CT scan performed
	Pathological lymph nodes on CT
	Bone scan performed
	Findings indicative of metastasis
Multimodal staging (clinical, biopsy, imaging)	Apical involvement
	Capsular infiltration
	Seminal vesicle infiltration
Prognostic stage	NCCN stage
	D'Amico classification
Proposed treatment plans	Pre-existing treatment plan (if applicable)
	Consultant urologist proposal
	Consultant radiotherapist proposal
	Multidisciplinary team proposal
Patient choice	Chosen treatment modality
	Modification of pre-existing choice
	Place of treatment
	Modification of place of treatment

Questionnaire

The project questionnaire was designed and dispatched via postal mail at two time-points at a 5-month interval, accompanied by an introductory letter and prepaid postage envelope, in accordance with national legislations. The questionnaire enquired upon patient satisfaction, perception of the consultation experience, and aimed to collect complementary information on CaP management after the time of PCMC consultation (Table S1).

Statistical analysis

The reported percentages in the descriptive statistics are estimated on the total number of the cohort (n = 195). The reported percentages relevant to questionnaire responses refer to the total number of received responses, unless otherwise specified. The percentage values were rounded to the nearest unit.

Results

We identified 215 consecutive patients seen in the PCMC clinic during the period March 2011-December 2013. A total of 20 patients were excluded from the analysis as per the above exclusion criteria. The final analysis was performed on 195 patients. Of them, 91 patients consulted in 2011 and 104 patients in 2012. A flowchart of study procedure is shown in Fig. 1. A total of 134 questionnaires were returned (69%). Question-specific response rates varied greatly (39–68%) (Table S2). Patient and disease characteristics and consultation specifics are detailed in Table 2.

Treatment proposals during the PCMC consultation depended on disease recurrence risk. Overall, three, two and one options were offered for low, intermediate and high-risk patients, respectively. At the subsequent GU Tumor Board, one or two treatment options were suggested for the majority of low- and intermediate-risk patients, while for high-risk patients a single recommendation was usually made. Table 3 gives an account of treatment recommendations by the PCMC specialists and the GU Tumor Board.

Concordance rate amongst the PCMC clinic specialists was 96.6%, with complete concordance for all proposals at 67.4% (for patients for which more than one was made). Concordance between the radiation oncologist and Tumor Board was 94.4%, and between the surgeon and Tumor Board was 97.3% (complete concordance rates of 55.8% and 65.4% respectively).

The eventual treatment choices were recorded in the medical files or communicated via the questionnaire for 71% of patients (outlined in Table S3). The percentages of surgery and radiotherapy (external beam or brachytherapy) choices did not differ (29.2% and 29.8% respectively). The final patient choice was in agreement with the Tumor Board recommendation in 93.4%; concordance was 93.4% and 84.5% with the surgeon and radiation oncologist proposals, respectively.

Since this was a second-opinion consultation, all patients had previously seen a urological surgeon elsewhere, and had an established histological diagnosis and a provisional treatment plan. More than half of responding patients (55%) reported that, during their Gustave Roussy PCMC consultation, they were offered treatment options not considered during their initial consultation. Patient satisfaction rate was almost absolute, with 114 of 118 (96.6%) and 4 of 118 (3%) of responding patients reporting complete and moderate satisfaction, respectively. The great majority of responders (122 of 125, 97.6%) felt better informed, either

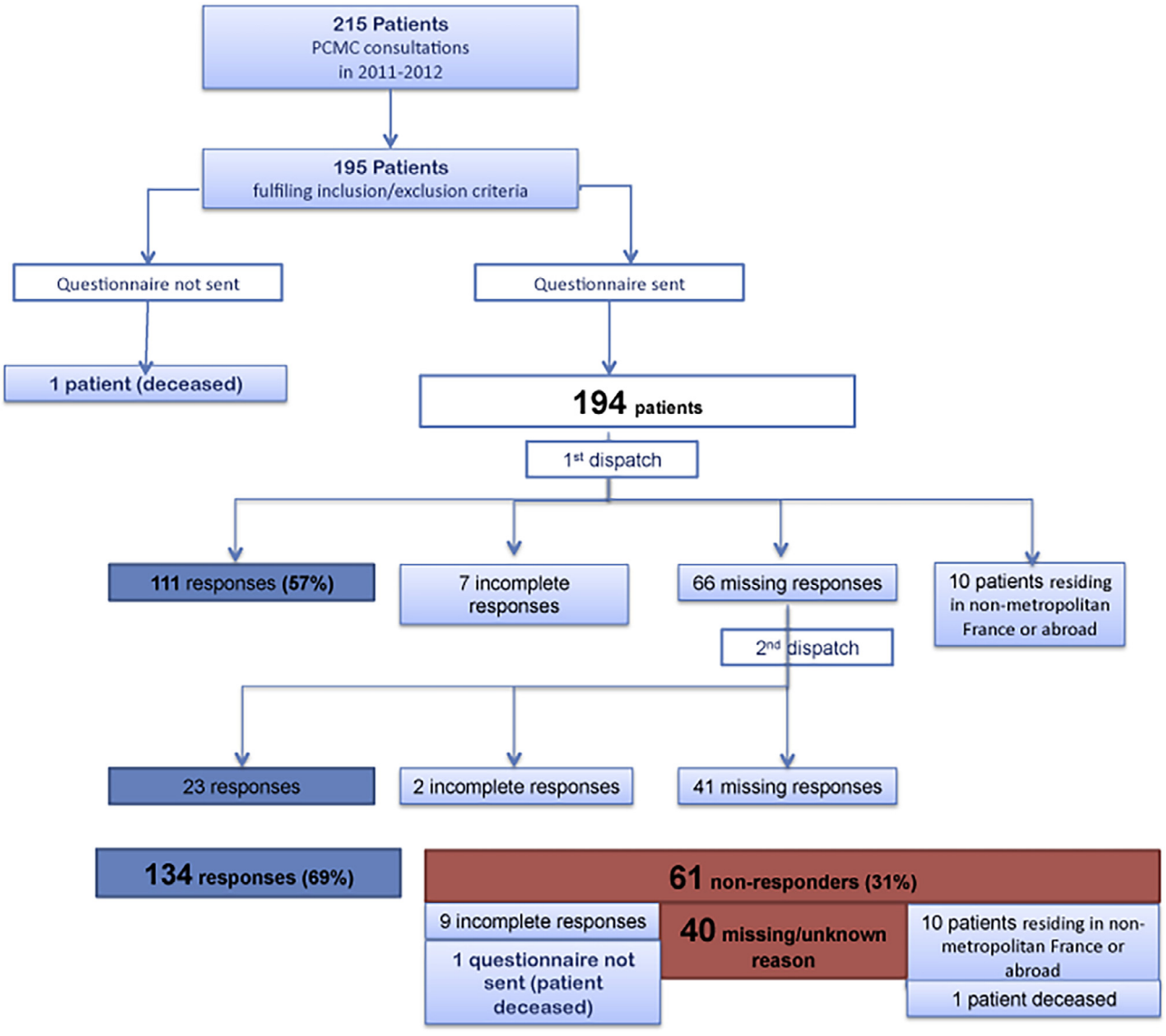

Fig. 1. PCMC study consort diagram.

Table 2
Patient characteristics and consultation specifics.

Consultation motive (number,%)[1,2]	
Second opinion	84 (62.7)
Advice of friends/family	39 (29.1)
Medical referral	21 (15.7)
Internet-based information	13 (9.7)
Inadequate prior information	14 (10.4)
Consultation order (number,%)[3]	
Surgeon then radiation oncologist	25 (12.8)
Radiation oncologist then surgeon	129 (66.1)
Order not recorded	13 (6.7)
Joint consultation	20 (10.2)
Surgeon only	3 (1.6)
Radiation oncologist only	5 (2.6)
Age (yrs)[3]	
Range	42–81
Median	63.5
Mean	63.8
Q1	59
Q3	68
Age group (number,%)[3]	
40–49	8 (4.1)
50–59	45 (23.1)
60–69	102 (52.3)
70–81	40 (20.5)
Prior history (number,%)[4]	
Cardiovascular disease	88 (64.2)
TURP	10 (7.5)
LUTS (number,%)[4]	
Terminal dribbling	26 (24.8)
Hesitancy	23 (50.0)
IPSS score[4]	
≤7	46 (56.1)
8–19	36 (43.9)
20–35	2 (2.4)
Prostate volume (cm^3) [4]	
Range	15–140
Median	40
T stage[4]	
T1	98 (62.4)
T2	49 (31.2)
T3	10 (6.4)
T4	0 (0)
Imaging[3]	
MRI prostate-pelvis	144 (73.8)
CT abdomen-pelvis	57 (29.2)
CT & MRI	31 (15.9)
Bone scan	2 (1.0)
PSA (ng/ml)[3]	
Median	7.3
<10	139 (71.3)
10–20	43 (22.0)
≥20	12 (6.2)
Unknown	1 (0.5)
Prostatic biopsies[4]	
Median number of cores	12
Median number of positive cores	3
Median tumor length (mm)	7
Capsular involvement	28 (12)
Seminal vesicle involvement	14 (7)
Gleason score[3]	
6	95 (48.7)
7	84 (43.1)
7 (3 + 4)	65
7 (4 + 3)	15
Unknown	4
8	11 (5.6)
9	1 (0.5)
10	0 (0)
Unknown	4 (2.1)
D'Amico classification[3]	
Low risk	73 (37.4)
Intermediate risk	89 (45.7)
High risk	25 (12.8)
Metastatic	8 (4.1)

[1] Estimated for the total of returned questionnaires (n = 134).
[2] More than one answer to this question was possible.
[3] Estimated for the total of analyzed patients (n = 195).
[4] Estimated for the total of patients for whom relevant information was recorded.

entirely or moderately, while two patients did not feel so, and one patient failed to give an informative answer. The double consultation was found useful by 96.1% of responding patients. The PCMC consultation led to modification of treatment decision in 46% of responding patients, against 26% for whom the consultation did not lead to change of their treatment choice, while 29% of patients had not yet taken their final decision at the end of PCMC consultation. Importantly, 89.3% of patients reported feeling active participants in the decision-making process, while all patients reported satisfaction (97% entirely, 3% moderately) from their PCMC consultation.

Discussion

The PCMC proposes an interdisciplinary consultation time with emphasis on management options and patient choice. It is a time of information, reflection and decision-making. The participating oncology specialists practice different therapeutic modalities and therefore have distinct medical cultures. These double, long, expert consultations serve to optimize provision of specialist information and care. The diversity of provided information, if moderate and not contradictory, may act to facilitate the reflection process of the patient. The sequential consultations with the two specialists, frequently accompanied by his family, feature the patient himself in the centre of the action as the common denominator.

This shared decision-making is a multilevel process influenced by several factors, such as history of cardiovascular disease or recent transuretheral resection of the prostate (TURP). The nature and severity of urinary symptoms also influence management decisions; surgery allows for improvement of obstructive symptoms, whilst radiotherapy (either brachytherapy or external beam irradiation) might worsen them. Irritative symptoms frequently worsen after radiotherapy, while surgery is associated with increased risk of urinary incontinence [4]. Their assessment equally allows for decision on the indication for symptomatic medical treatment or a combined modality.

Interestingly, the median age of our cohort (63.5 years) was significantly lower than the national median for CaP diagnosis (70 years) [5], indicating that younger patients were more actively seeking a second opinion and participation in the decision-making process [6].

It ought to be highlighted that the few *de novo* metastatic patients were purposefully not excluded from our analysis (Table 2), although they represent a minority of patients in our cohort as the PCMC clinic was designed for patients with localized and locally advanced disease. In the era of changing paradigm for *de novo* metastatic CaP [7–9], lymph-node only pelvic disease or even oligometastatic patients may benefit from a primary locoregional treatment alone or in combination with upfront systemic therapy and could therefore derive benefit from consulting early after diagnosis with specialists involved in locoregional treatments.

The main limitations of our study include memory bias (questionnaires dispatched at an average of two years after the consultation), information bias (the measured outcome was subject to receiving a written response), and associated selection bias, as the obtained answers may not be representative of the cohort (patients with stronger opinions are generally more likely to respond). A further bias could refer to the order of specialist consultations; indeed for clinic scheduling purposes the majority of patients consulted with the radiation oncologist first followed by the surgeon (129 patients, 66%). That could lead to underrepresentation of certain aspects of clinical elements pertaining to the decision-making, should it was felt that they might have been sufficiently exposed in the preceding consultation.

Table 3
PCMC recommended treatment options.

Recommended treatment options								
Low risk (n = 72)		Active surveillance	Surgery	RT	Brachytherapy	HT[3]	Other	Unknown
	Initial	10 (13.9)	24 (33.3)	5 (6.9)	5 (6.9)	0 (0.0)	1 (1.4)	40 (55.5)
	Radiation oncologist	34 (47.2)	60 (83.3)	33 (45.8)	43 (59.7)	0 (0.0)	3 (4.2)	1 (1.4)
	Surgeon	29 (40.3)	51 (70.8)	28 (38.9)	26 (36.1)	0 (0.0)	7 (9.7)	1 (1.4)
	MDT	26 (36.1)	39 (54.2)	19 (26.4)	32 (44.4)	0 (0.0)	8 (11.1)	1 (1.4)
Intermediate risk (n = 89)								
	Initial	3 (3.4)	34 (38.2)	13 (14.6)	2 (2.2)	1 (1.1)	2 (2.2)	49 (55.0)
	Radiation oncologist	2 (2.2)	73 (82.0)	82 (92.1)	18 (20.2)	0 (0.0)	5 (5.6)	0 (0.0)
	Surgeon	1 (1.1)	70 (78.6)	67 (65.3)	16 (17.9)	0 (0.0)	7 (7.9)	3 (3.4)
	MDT	2 (2.2)	60 (67.4)	50 (56.2)	9 (10.1)	1 (1.1)	8 (9.0)	2 (2.2)
High risk (n = 24)								
	Initial	0 (0.0)	3 (12.5)	4 (16.7)	0 (0.0)	0 (0.0)	0 (0.0)	18 (75.0)
	Radiation oncologist	0 (0.0)	7 (29.2)	23 (95.8)	0 (0.0)	0 (0.0)	1 (4.2)	0 (0.0)
	Surgeon	0 (0.0)	6 (25.0)	22 (91.7)	0 (0.0)	1 (4.2)	1 (4.2)	0 (0.0)
	MDT	0 (0.0)	1 (4.2)	21 (87.5)	0 (0.0)	1 (4.2)	3 (12.5)	0 (0.0)
Metastatic (n = 8)								
	Initial	0 (0.0)	0 (0.0)	2 (25.0)	0 (0.0)	1 (12.5)	0 (0.0)	5 (62.5)
	Radiation oncologist	0 (0.0)	0 (0.0)	5 (62.5)	0 (0.0)	3 (37.5)	0 (0.0)	1 (12.5)
	Surgeon	0 (0.0)	0 (0.0)	4 (50.0)	0 (0.0)	2 (25.0)	0 (0.0)	2 (25.0)
	MDT	0 (0.0)	0 (0.0)	4 (50.0)	0 (0.0)	4	0 (0.0)	1 (12.5)
Total (n = 195)[1,2]								
	Initial	13 (6.7)	61 (31.3)	24 (12.3)	7 (3.6)	2 (1.0)	4 (2.0)	112 (57.4)
	Radiation oncologist	37 (19.0)	140 (71.8)	143 (73.3)	61 (31.3)	3 (1.5)	12 (6.2)	2 (1.0)
	Surgeon	31 (15.9)	127 (65.1)	121 (62.0)	52 (26.7)	3 (1.5)	18 (9.2)	6 (3.1)
	MDT	29 (14.9)	104 (53.3)	90 (46.1)	41 (21.0)	6 (3.1)	21 (10.8)	4 (2.0)

[1] Percentages in brackets refer to the respective (sub-)cohort total.
[2] The total cohort number includes the 2 patients whose prostate cancer diagnosis was on TURP.
[3] HT refers to hormonal treatment alone, while hormonal treatment (short or long course) combined with RT is included in the RT group.

The concordance rates amongst specialists and Tumor Board were highly satisfactory. Although the input of a medical oncologist was obtained in the GU Tumor Board discussion, the presence of a medical oncologist in the PCMC consultation itself would optimize management both for localized CaP and for newly-diagnosed metastatic patients [10], and most likely further improve the concordance rates between PCMC and Tumor Board, as well as enrich the discussions regarding potential participation in novel agent trials, as the latter have now moved forward to the early and newly-diagnosed disease stages [11,12].

Further means of improving the PCMC consultation quality and efficiency would be the inclusion of a specialist GU oncology nurse [13]. Their role would entail providing patients with relevant information packages prior to the consultation, preparing patients for better benefiting from their consultation experience, but also discussing and outlining the consultation outcome and obtaining patient feedback at the end of the double consultation. A dedicated PCMC information site within the Gustave Roussy website is also planned; the option of electronically completing the questionnaire could also be included, as a means of improving response rates. Finally, development of a standardized proforma for data capture during the PCMC consultation would aid towards obtaining more complete and homogeneous clinical data via improving intra- and inter-examiner reliability.

Previous published evidence on interdisciplinary consultations offers important knowledge on the value, function and challenges of such specialized clinics [6,13–21]. A significant feature of our PCMC is the sequential nature of the specialist consultation, as opposed to a single joint consultation. This offers a diversity of scientific rationale and improved quality of provided information, aids in the integration and processing of information, but also further reinforces the validity of therapeutic proposals; conversely, the patient would more easily appreciate any inconsistencies in the proposed treatment plan(s).

Conclusion

The evaluation of the first years of the Gustave Roussy PCMC indicated high levels of patient satisfaction and a perceived sense of being better equipped to make their final decision on treatment. The double specialist consultation received significant appreciation, providing patients with valid scientific approaches and management details, but also enhancing confidence in the recommendations towards finalizing a treatment plan, and providing them with a feeling of active participation.

Acknowledgements

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors. The authors declare that they have no conflict of interest.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at https://doi.org/10.1016/j.ctro.2018.07.001.

References

[1] Horwich A, Hugosson J, de Reijke T, Wiegel T, Fizazi K, Kataja V, Panel Members; European Society for Medical Oncology. Prostate cancer: ESMO Consensus Conference Guidelines 2012. Ann Oncol 2013;24. 1141–62.
[2] Nomenclature des professions et catégories socioprofessionnelles des employs salaries d'enterprise PCS-FSE 2003. http://www.insee.fr/fr/methodes/nomenclatures/pcsese/pcsese2003/doc/Brochure_PCS_ESE_2003.pdf.
[3] Edge S, Byrd DR, Compton CC, Fritz AG, Greene FL, Trotti A (eds). AJCC cancer staging manual. 7th ed., American Joint Committee on Cancer. Springer; 2010.
[4] Gore JL, Kwan L, Lee SP, Reiter RE, Litwin MS. Survivorship beyond convalescence: 48-month quality-of-life outcomes after treatment for localized prostate cancer. J Natl Cancer Inst 2009;101:888–92.
[5] Institut National du Cancer, "Epidémiologie du cancer de la prostate en France métropolitaine-Données essentielles," lesdonnees.e-cancer.fr. [Online]. Available:

http://lesdonnees.e-cancer.fr/les-fiches-de-synthese/1-types-cancer/10-cancer-prostate/19-epidemiologie-nationale-cancer-prostate-donnees-essentielles.html#ind4.
[6] Stewart SB, Bañez LL, Robertson CN, Freedland SJ, Polascik TJ, Xie D, et al. Utilization trends at a multidisciplinary prostate cancer clinic: initial 5-year experience from the Duke Prostate Center. J Urol 2012;187:103–8.
[7] James ND, Sydes MR, Clarke NW, Mason MD, Dearnaley DP, Anderson J, et al. Systemic therapy for advancing or metastatic prostate cancer (STAMPEDE): a multi-arm, multistage randomized controlled trial. BJU Int 2009;103:464–9.
[8] Parker CC, Sydes MR, Mason MD, Clarke NW, Aebersold D, de Bono JS, et al. Prostate radiotherapy for men with metastatic disease: a new comparison in the Systemic Therapy in Advancing or Metastatic Prostate Cancer: Evaluation of Drug Efficacy (STAMPEDE) trial. BJU Int 2013;111:697–9.
[9] Vale CL, Burdett S, Rydzewska LH, Albiges L, Clarke NW, Fisher D, et al. Addition of docetaxel or bisphosphonates to standard of care in men with localised or metastatic, hormone-sensitive prostate cancer: a systematic review and meta-analyses of aggregate data. Lancet Oncol 2016;17:243–56.
[10] Morgans AK, Penson DF. The more, the merrier: including a medical oncologist in treatment planning for localized prostate cancer. J Oncol Pract Am Soc Clin Oncol 2014;10:113–4.
[11] Safety and Efficacy Study of Enzalutamide Plus Leuprolide in Patients With Nonmetastatic Prostate Cancer (EMBARK). https://clinicaltrials.gov/ct2/show/NCT02319837?term=embark&rank=8.
[12] Fizazi K, Abrahamsson PA, Ahlgren G, Bellmunt J, Castellano D, Culine S, et al. Achievements and perspectives in prostate cancer phase 3 trials from genitourinary research groups in Europe: introducing the Prostate Cancer Consortium in Europe. Eur Urol 2015;67:904–12.
[13] Madsen LT, Craig C, Kuban D. A multidisciplinary prostate cancer clinic for newly diagnosed patients: developing the role of the advanced practice nurse. Clin J Oncol Nurs 2009;13:305–9.
[14] Magnani T, Valdagni R, Salvioni R, Villa S, Bellardita L, Donegani S, et al. The 6-year attendance of a multidisciplinary prostate cancer clinic in Italy: incidence of management changes. BJU Int 2012;110:998–1003.
[15] Korman H, Lanni T, Shah C, Parslow J, Tull J, Ghilezan M, et al. Impact of a prostate multidisciplinary clinic program on patient treatment decisions and on adherence to NCCN guidelines: the William Beaumont Hospital experience. Am J Clin Oncol 2013;36:121–5.
[16] Schostak M, Wiegel T, Müller M, Hoecht S, Schrader M, Straub B, et al. Shared decision-making–results from an interdisciplinary consulting service for prostate cancer. World J Urol 2004;22:441–8.
[17] Baumunk D, Reunkoff R, Kushner J, Baumunk A, Kempkensteffen C, Steiner U. Interdisciplinary decision making in prostate cancer therapy – 5-years' time trends at the Interdisciplinary Prostate Cancer Center (IPC) of the Charité Berlin. BMC Med Inform Decis Mak 2014;13:83.
[18] Aizer AA, Paly JJ, Zietman AL, Nguyen PL, Beard CL, Rao SK. Multidisciplinary care and pursuit of active surveillance in low-risk prostate cancer. J Clin Oncol Off J Am Soc Clin Oncol 2012;30:3071–6.
[19] Gomella LG, Lin J, Hoffman-Censits J, Dugan P, Guiles F, Lallas CD, et al. Enhancing prostate cancer care through the multidisciplinary clinic approach: a 15-year experience. J Oncol Pract Am Soc Clin Oncol 2010;6:e5–e10.
[20] Valicenti RK, Gomella LG, El-Gabry EA, Myers R, Nathan F, Strup S, et al. The multidisciplinary clinic approach to prostate cancer counseling and treatment. Semin Urol Oncol 2000;18:188–91.
[21] Bellardita L, Donegani S, Spatuzzi AL, Valdagni R. Multidisciplinary versus one-on-one setting: a qualitative study of clinicians' perceptions of their relationship with patients with prostate cancer. J Oncol Pract Am Soc Clin Oncol 2011;7:e1–5.