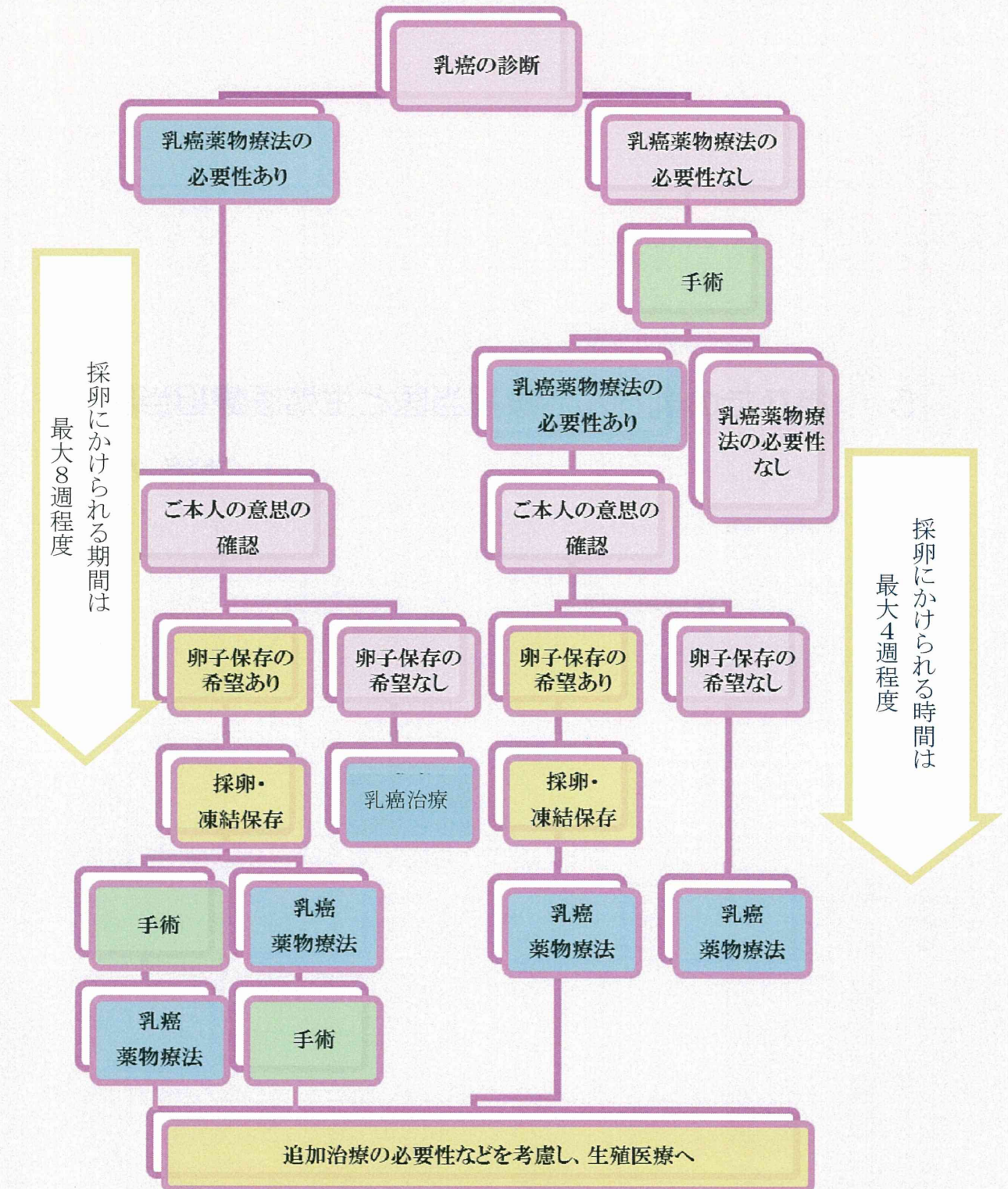


3 生殖医療専門家を選ぶときのポイント

薬物療法前に採卵をする場合、生殖医療専門医と乳がん治療担当医がお互いの治療に関して連絡を取り合えることが重要になります。がんの治療スケジュールによっては採卵にかけられる時間が限られていることを考慮しつつ、次のような点について情報を集めておくことが有用です。

- 治療実績
- 施設
- エンブリオロジスト(胚培養士)
- 生殖医療の件数
- 卵の長期凍結保存が可能かどうか
- 凍結未受精卵・凍結受精卵からの成功率など

4 フローチャート



5 あなたの乳がん治療担当医と生殖医療担当医の 連絡ノート

(ア) 乳腺科→生殖医療クリニックへ

乳腺科担当 病院 科 先生

紹介目的：乳がん治療に伴う卵巣機能評価、妊孕能温存の御相談

【あなたの背景】

- 年齢 歳,
- パートナーの有無 { あり 既婚/未婚
なし
- 妊娠歴 { あり 妊娠回数： 回, 出産回数： 回
なし
- 初潮 才
- 月経 { 最終月経 月 日
周期 日～ 日 順/不順
- 月経痛 強・普・弱
- ピル服用 有・無
- 子宮内膜症 有・無
- 子宮筋腫 有・無
- 月経困難症 有・無
- 卵巣/子宮手術歴 有 ()・無

(イ) 生殖医療クリニックから乳腺科へ

生殖医療担当医

病院

先生

- 卵採取は行わない
- 卵採取を行う(排卵誘発の方法やスケジュールをご教示ください)

【排卵誘発の方法】

1. GnRH アゴニスト法(Long 法・Short 法)
2. GnRH アンタゴニスト法
3. 簡易刺激法(クロミフェン法)
4. レトロゾール法(アロマターゼインヒビター法)
5. その他 _____

【採卵スケジュール予定】

第1周期 月 日 予定 / 第2周期 月 日 予定

【次回生殖医療専門機関 受診予定日】 月 日 予定

次回受診時にお知りになりたい情報があればご記載ください

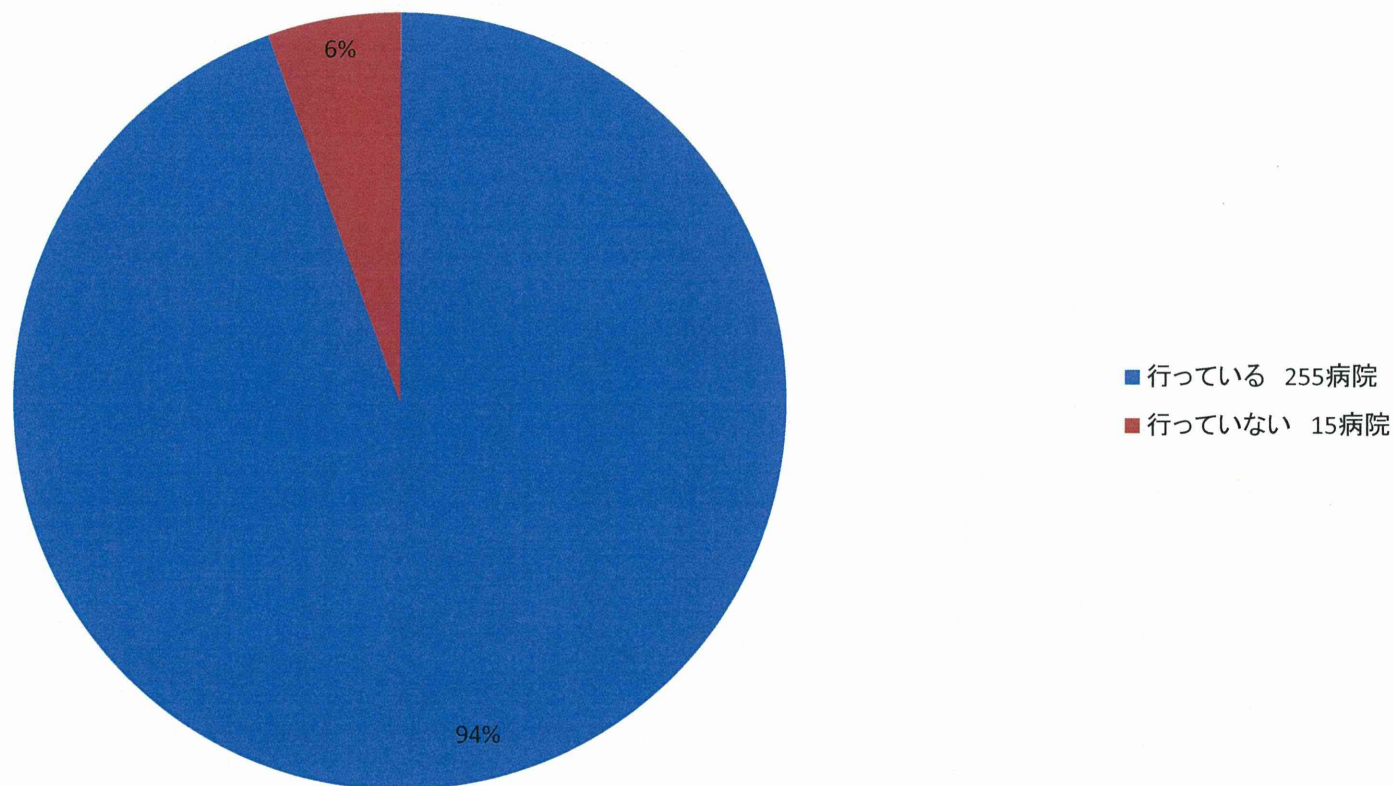
編集・執筆

加藤 友康 国立がん研究センター中央病院 婦人腫瘍科
清水千佳子 国立がん研究センター中央病院 乳腺科・腫瘍内科
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山本精一郎 国立がん研究センター中央病院 がん対策情報センター

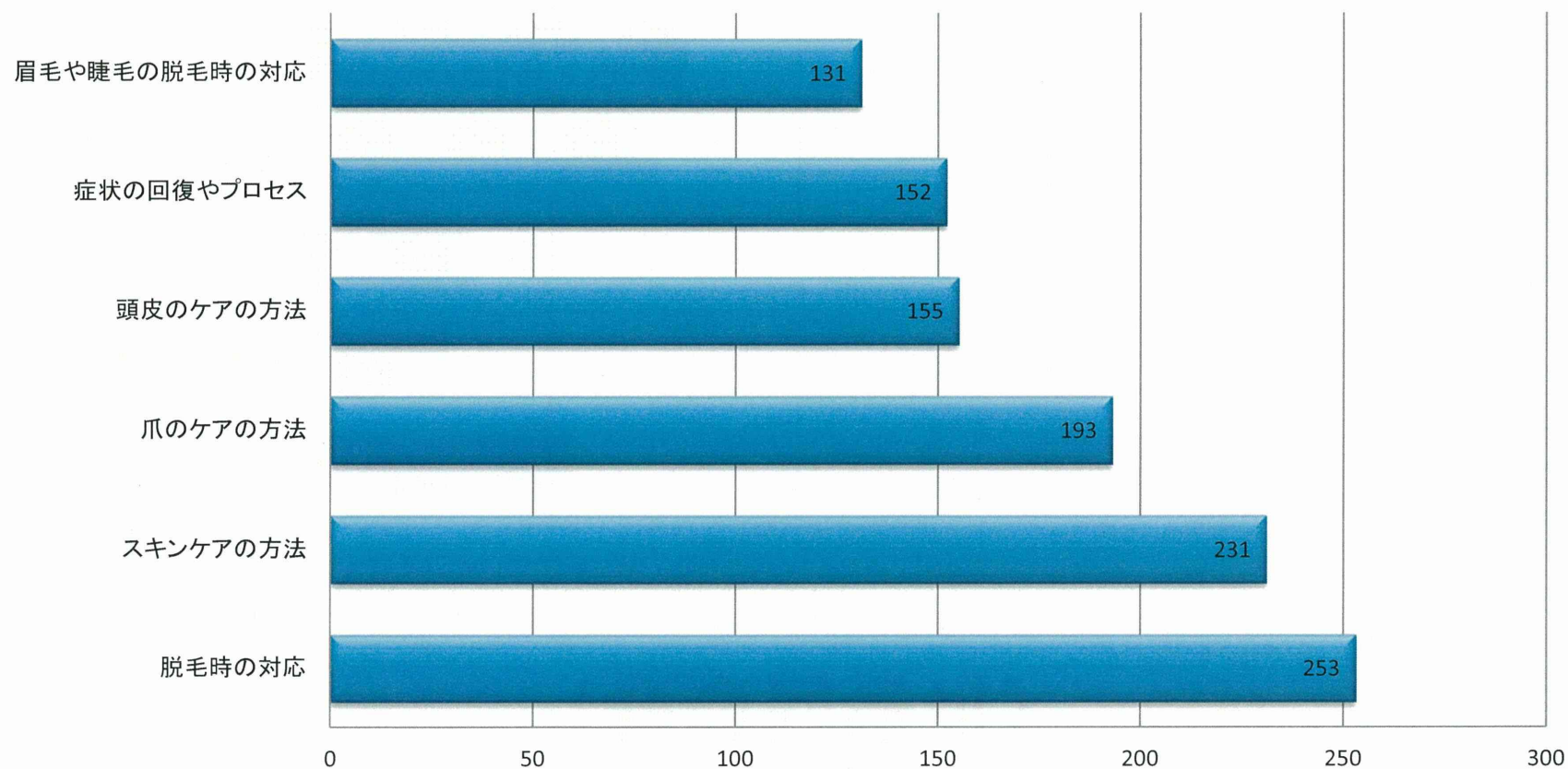
協力

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東京医科歯科大学 腫瘍外科
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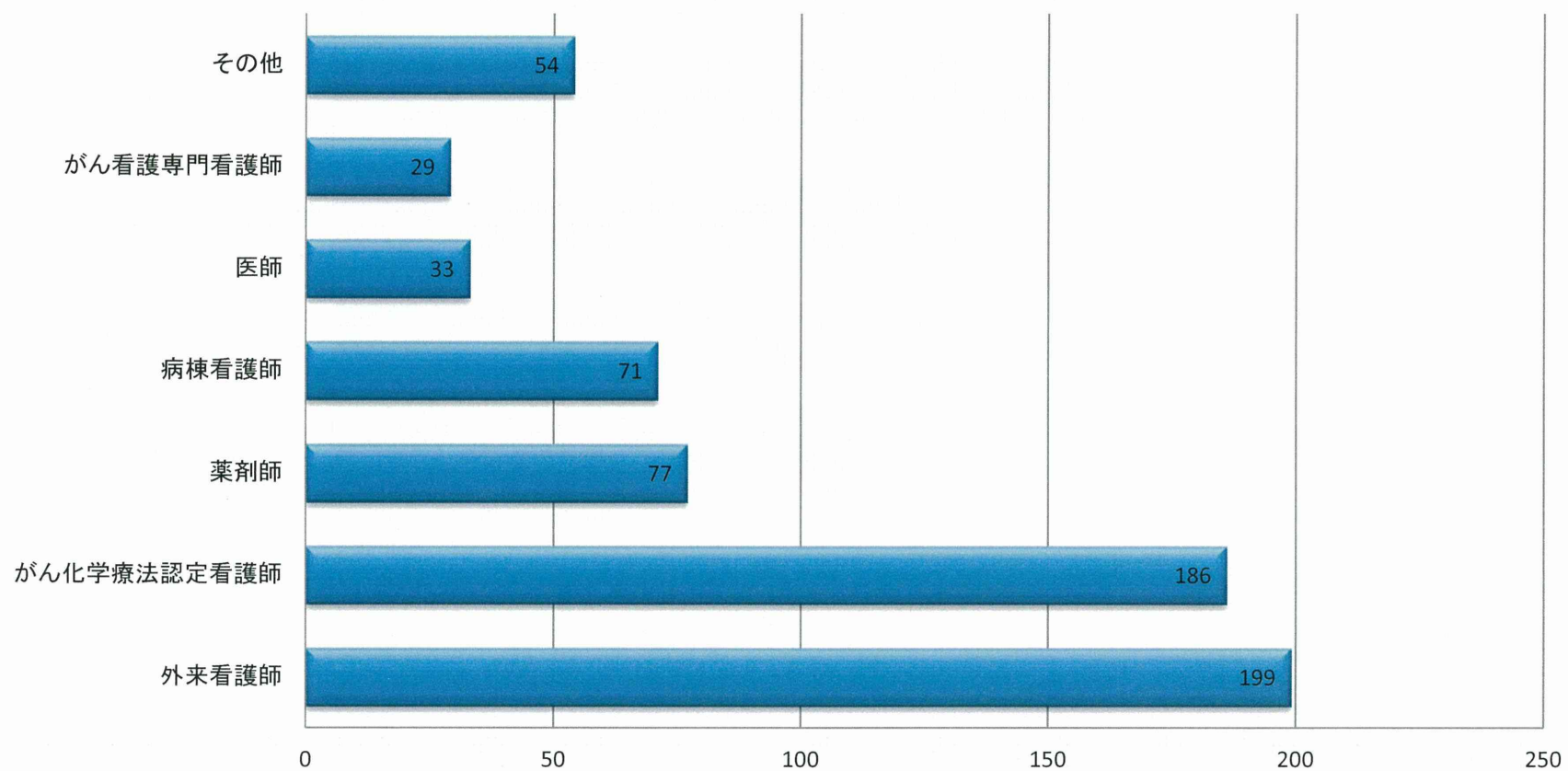
外見支援に関する取り組みを行っているか？



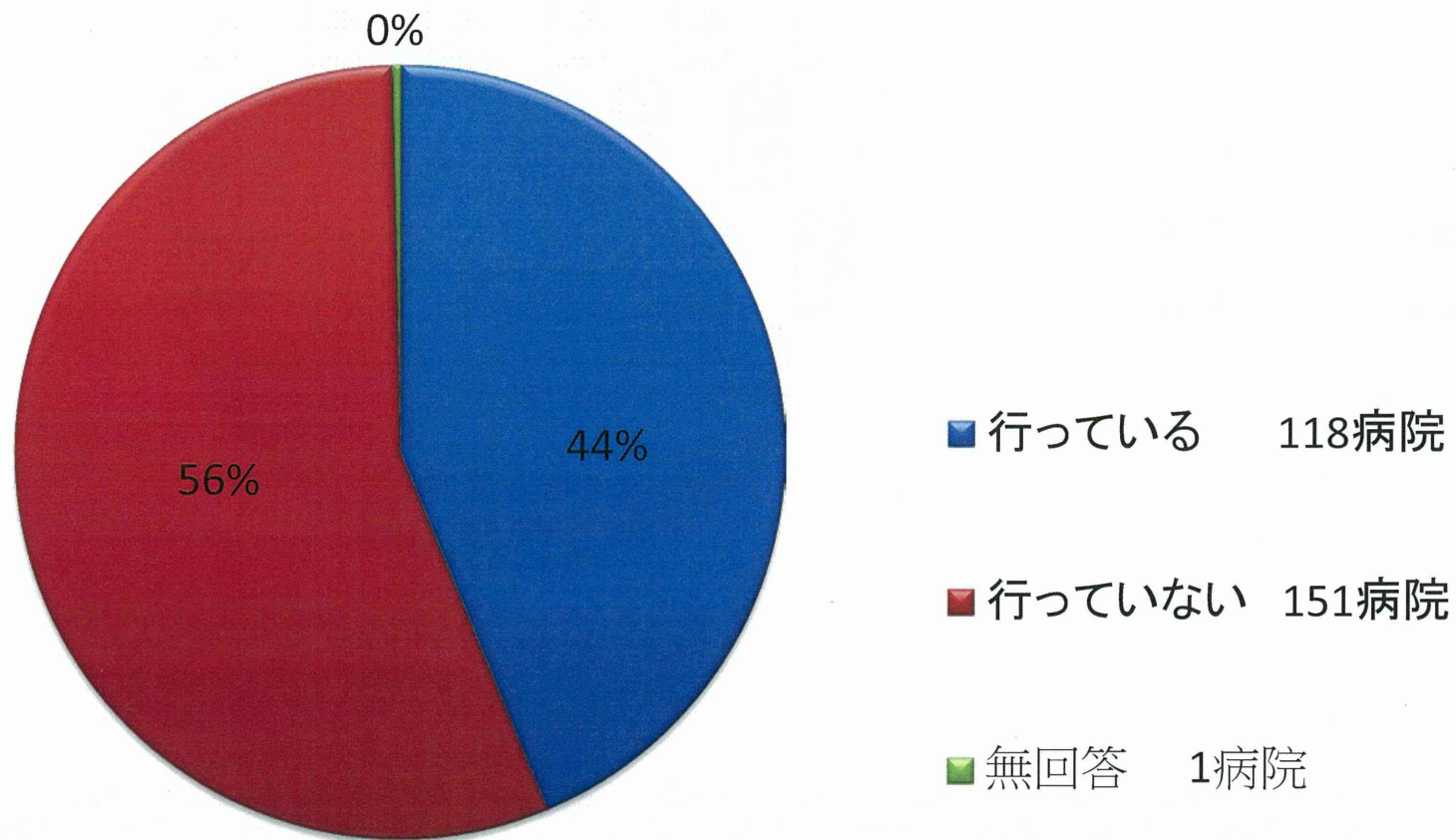
どのような外見変化に対して支援しているか？



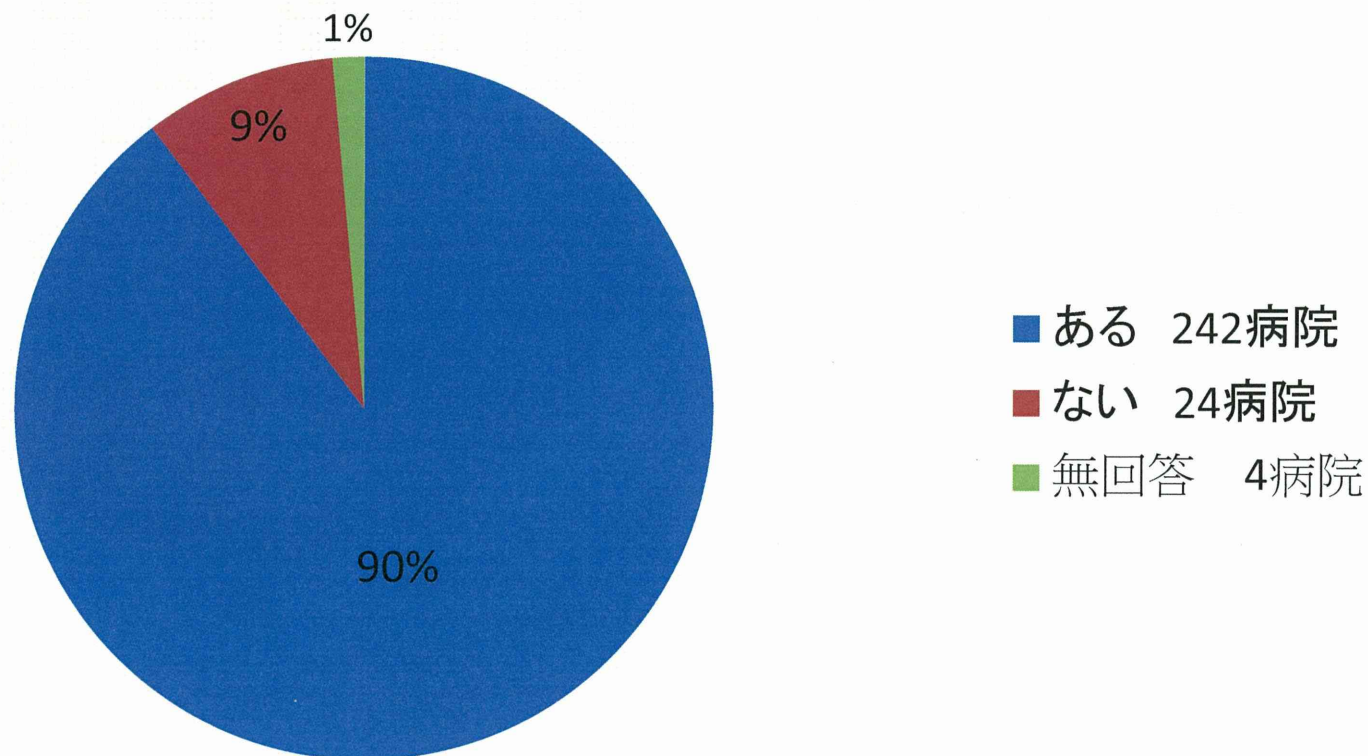
誰が外見関連支援を行っているか？ (複数回答可)



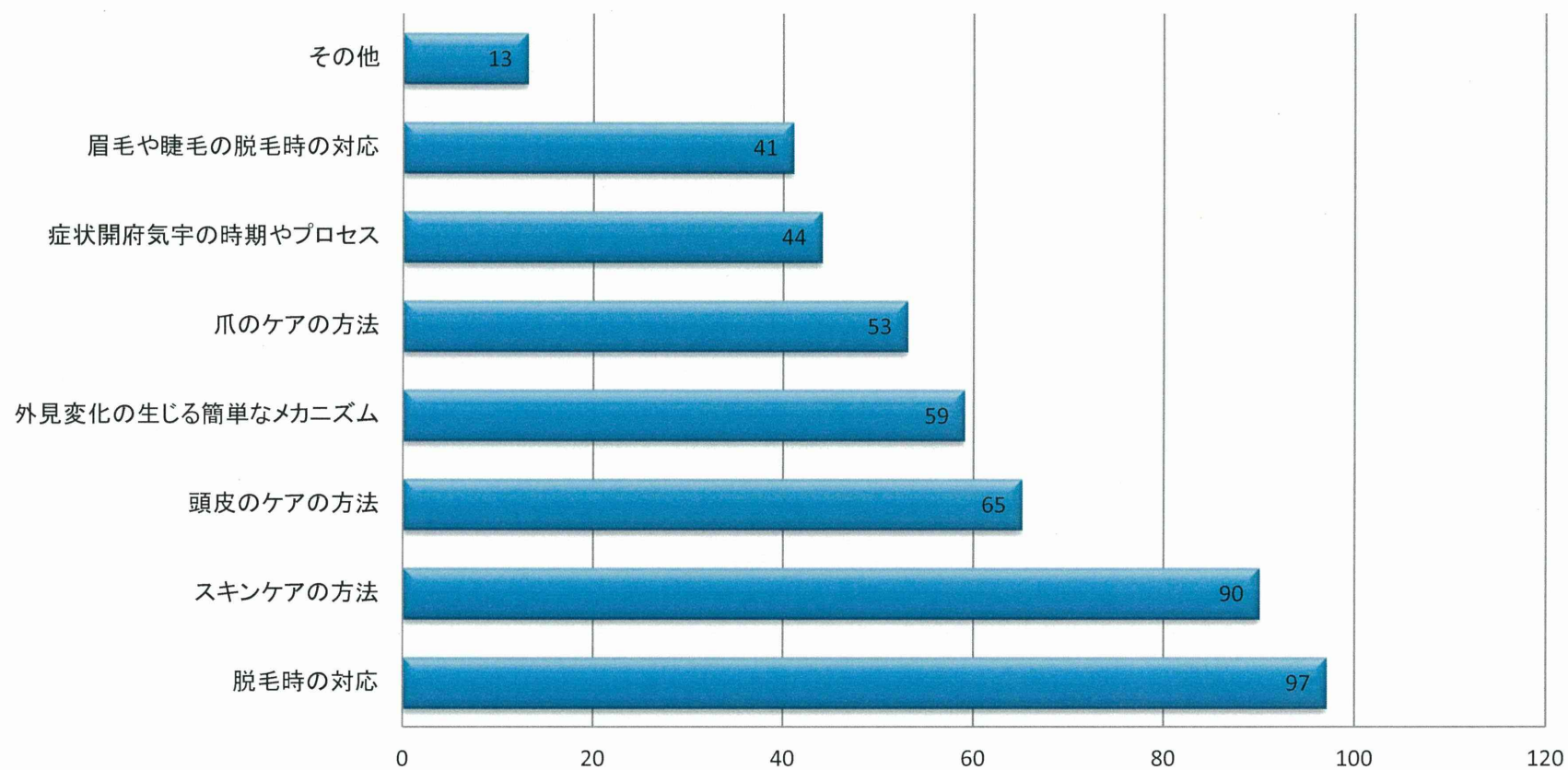
自施設で外見ケアの研修会を行っているか？



外見ケアについての教育研修会を開催した場合に参加の希望はあるか？



研修会に希望する具体的な内容(複数回答可)



III. 研究成果の刊行に関する一覧表

研究成果の刊行に関する一覧表

書籍

著者氏名	論文タイトル名	書籍全体の編集者名	書籍名	出版社名	出版地	出版年	ページ
該当なし							

雑誌

発表者氏名	論文タイトル名	発表誌名	巻号	ページ	出版年
<u>Shimizu C, Bandoh H, Kato T, Mizota Y, Yamamoto S, Fujiwara Y.</u>	Physicians' knowledge, attitude, and behavior regarding fertility issues for young breast cancer patients: a national survey for breast care specialists	Breast Cancer	Epub ahead of print		2012
Tanabe Y, Hashimoto K, Shimizu C, Hirakawa A, Harano K, Yunokawa M, Yonemori K, Katsumata N, Tamura K, Ando M, Kinoshita T, Fujiwara Y.	Paclitaxel-induced peripheral neuropathy in patients receiving adjuvant chemotherapy for breast cancer	Int J Clin Oncol	Epub ahead of print		2012
久保晶子、小井土啓一、澤田麻理、龍島靖明、清水千佳子、加藤友康、安藤正志、木下貴之、村越功治、横手信昭、藤原康弘、山本弘史	乳癌薬物治療に伴う妊孕性への影響に関する情報提供の実態調査	癌と科学療法	39(3)	399-403	2012

IV. 研究成果の刊行物・別刷

Physicians' knowledge, attitude, and behavior regarding fertility issues for young breast cancer patients: a national survey for breast care specialists

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Yuri Mizota · Seiichiro Yamamoto ·
Yasuhiro Fujiwara

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Abstract

Background Fertility is one of the key aspects of quality of life for breast cancer patients of childbearing age. The objective of this study was to describe fertility-related practice for young breast cancer patients in Japan and to identify healthcare provider factors that contribute to physicians' behavior towards fertility preservation.

Methods A cross-sectional survey was developed in order for Japanese breast cancer specialists ($n = 843$) to self-evaluate their knowledge, attitude, and behavior regarding fertility preservation. Survey items included questions regarding knowledge of and attitude toward fertility issues in cancer patients, fertility-related practice, potential barriers for the discussion of fertility with patients, and responding physicians' socio-demographic background.

Results Four hundred and thirty-four (52%) breast oncologists responded to the survey. Female and younger oncologists (age less than 50 years) had significantly higher probability of referring patients to reproductive

specialists. Physicians who had better knowledge score and positive attitudes toward fertility preservation were more likely to discuss potential fertility issues with cancer patients. This was significantly associated with consultation and referral to reproduction specialists when encountering fertility issues with cancer patients. Risk of recurrence, lack of collaborating reproductive specialists, and time constraints in the clinic were identified as major barriers to discussion of fertility preservation with breast cancer patients.

Conclusion Female and younger physicians as well as physicians working in a multidisciplinary environment had positive attitudes and behavior towards fertility preservation in breast cancer patients. The development of comprehensive and interdisciplinary programs for healthcare providers is necessary to meet the expectations and fertility needs of breast cancer patients.

Keywords Fertility preservation · Breast cancer · Survivorship

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Introduction

With improvement of cancer prognosis, fertility has become one of the key aspects of quality of life for breast cancer patients of childbearing age. Distress about interrupted childbearing is likely to persist in long-term female cancer survivors [1]. The American Society of Clinical Oncology (ASCO) has developed guidance for oncologists regarding available fertility preservation methods and related issues [2]: oncologists should address the possibility of infertility with patients during their reproductive years and be prepared to discuss possible fertility preservation options or refer appropriate and interested patients to

reproductive specialists as early as possible during treatment planning.

However, previous studies have shown that only 23% of the patients younger than 40 years of age were informed of potential infertility after cancer treatment in a single institution in Japan and less than half of oncologists were following the ASCO guideline in the USA [3, 4]. The practice of oncologists regarding fertility preservation in cancer patients of reproductive age may depend on multiple factors: the patient's medical and psychosocial condition [5, 6], the patient's knowledge [7], and physicians' knowledge about fertility preservation [8].

We have previously analyzed the decision-making process for adjuvant treatment in young breast cancer patients of reproductive age [3]. Significantly less patients expressed interest in fertility when they had children or advanced disease. Less aggressive treatment (without chemotherapy) was recommended by oncologists for patients who voluntarily expressed an interest in preserving fertility [3]. Nearly one-third of the patients who expressed an interest in fertility selected a different adjuvant treatment from the primary recommendation of the oncologist because of their concern for preserving fertility, whereas the majority of patients who did not express an interest in preserving fertility followed the oncologists' primary recommendation [3].

The awareness and attitude of patients in the clinic might reflect the ability of healthcare providers to provide an environment in which patients could bring up fertility issues. The objectives of this study include describing fertility-related practice for breast cancer patients in a variety of clinical settings in Japan and identifying healthcare provider factors that contribute to physicians' behavior regarding fertility preservation in young breast cancer patients.

Methods

Selection of participant

A cross-sectional survey was developed in order for board-certified breast oncologists of the Japanese Breast Cancer Society (JBCS), who are the main physicians treating breast cancer patients in Japan, to self-evaluate their knowledge, perception, and behavior regarding fertility issues in young breast cancer patients.

Measures

The survey consisted of 49 items including questions regarding knowledge of and attitudes towards fertility in cancer patients, practice behavior of fertility-related discussions with patients, potential barriers for these

discussions, and demographic background of the practitioners (Table 1). Survey items were derived from existing literature and multidisciplinary discussion. Physicians were asked to evaluate their agreement with the statements using a five-grade system (1, strongly agree; 2, agree; 3, cannot decide; 4, disagree; 5, strongly disagree).

1. Knowledge about fertility issues in breast cancer patients

To evaluate the accuracy of knowledge about fertility issues in breast cancer patients, the statements were developed from the latest JBCS treatment guideline [5]. For statements A-1 and A-4, the respondents were considered to have more accurate knowledge when the score was lower. For statements A-2 and A-3, the respondents were considered to have more accurate knowledge when the score was higher. Then the sum of (5 - "score for A-1") + ("score for A-2") + ("score for A-3") + (5 - "score for A-4") was calculated. The respondents with a higher sum were considered to have more accurate overall knowledge. A-5 was not used to evaluate the accuracy of knowledge because of lack of definite evidence, but correlated with the use of LHRH agonist for fertility preservation.

2. Practice behavior for breast cancer patients of reproductive age

Practice behavior statements consisted of 13 items including statements used in the US oncologist survey with some modifications to adapt to Japanese practice setting. The statements "I discuss the impact of cancer treatment on future fertility with my patients", "I consult reproductive specialists with questions about fertility issues in my patients", and "I refer patients who have questions about fertility to reproductive specialists" were considered the most important behavior according to the ASCO guideline [2].

3. Potential barriers for discussing fertility issues with breast cancer patients

Among seven potential barriers asked in the questionnaire, four were similar to statements used in the US survey [4]. We put three additional statements (patients' voluntary expression of interest, existence of spouse/partner, and support from co-medical staff) that were created by findings from our previous study [2] and by considering Japanese culture. In addition, we asked the participant to describe the greatest difficulty in discussing fertility in an open question.

4. Attitude towards fertility preservation of cancer patients

Five statements were selected from the US survey [4]. Because the hereditary aspect of breast cancer was considered to be not genuinely linked with perception of

Table 1 Questionnaire statements

A. Knowledge about fertility issues of breast cancer patients

1. Total dose of alkylating agents are related to infertility
2. Pregnancy after breast cancer increases risk of recurrence
3. Pregnancy after chemotherapy increases risk of deformity of the child
4. Pregnancy should be avoided during tamoxifen treatment
5. Luteinizing hormone releasing hormone (LHRH) analogue reduces the risk of chemotherapy-induced amenorrhea

B. Practice behavior

1. Patients voluntarily bring up the fertility issues in the clinic
2. I discuss the impact of cancer treatment to future fertility with my patients
3. I do not feel comfortable to discuss fertility issue with my patients
4. I take into account the history of childbirth when I discuss fertility issue with my patient
5. I take into account whether she has a spouse/partner when I discuss fertility issue with my patient
6. I take into account economical status of the patient when I discuss fertility issue with my patient
7. I discuss fertility issues with breast cancer patients with high risk of recurrence
8. Patients talk to co-medical staff about their concern about fertility
9. I ask co-medical staff if a patient has an interest in fertility
10. I provide my patients with educational material about fertility preservation
11. I use LHRH analogue to preserve fertility
12. I consult a reproductive specialist with questions about fertility issues in my patients
13. I refer patients who have questions about fertility to reproductive specialists

C. Barriers for discussing fertility issues

1. The patient does not express their interest in fertility
2. The patient has high risk of recurrence
3. The patient has economic problems
4. The patient does not have a spouse/partner
5. There is no place/person to refer my patients to for fertility preservation
6. Time constraints affect my ability to discuss fertility preservation
7. There is no support from co-medical staff
8. What is the greatest difficulty in discussing fertility issues with young breast cancer patients?

D. Attitude toward fertility preservation

1. Patients with poor prognosis should not pursue fertility preservation
2. Posthumous parenting is troublesome for bereaved family
3. Losing mothers will negatively affect bereaved children
4. I fear passing hereditary cancer to a biological child
5. Treating cancer is more important than fertility preservation

E. Demographics and medical backgrounds

1. What is your gender?

Table 1 continued

2. What is your age?
3. What is your religious background?
4. When did you graduate from medical school?
5. What is your specialty?
6. Where is your primary practice located?
7. What kind of institution do you practice in?
8. Is your institution a community-base hospital for cancer care?
9. How many physicians are in your practice setting including you?
10. Are there any female physicians in your practice setting?
11. Are there any medical oncologists in your practice setting?
12. Are there any breast cancer specialized nurses in your practice setting?
13. Are there any cancer-specialized pharmacists in your practice setting?
14. Is there a genetic counseling clinic in your practice setting?
15. In a typical week, how many breast cancer surgeries are performed in your practice setting?
16. In a typical week, how many breast cancer patients under 40 years of age do you see?
17. Do you have a spouse/partner?
18. Do you have children?
19. Do you have relatives or close friends who passed away leaving behind minor children?

fertility preservation, the item was not included in our analysis. Participants were considered to be positive toward fertility preservation if the sum of scores was higher than 3. The sum of scores for statements from D-1 through D-5 was calculated and the respondents with higher total score were considered as physicians with a “positive attitude” towards fertility preservation.

5. Individual and institutional background

The items included physicians’ gender, age, religious background, length of professional career, and specialty. We also asked for a description of the practicing institution: the number of breast surgeries, the number of young breast cancer patients, presence of female colleagues in the team, the presence of one or more medical oncologist(s), breast cancer certified clinical nurse specialist (CNS), and board-certified pharmacists in the institution.

Procedures

The study was carried out according to the National Guideline for Epidemiological Studies. The names of study participants and the institutions of breast oncologists were obtained from the JBCS website. After confirmation of each physician’s affiliation, anonymous paper surveys were sent out to all 843 breast oncologists by mail with a return