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# Premenopausal Women with Breast Cancer: Developing Drugs for Treatment Guidance for Industry

## *DRAFT GUIDANCE*

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**U.S. Department of Health and Human Services  
Food and Drug Administration  
Oncology Center of Excellence (OCE)  
Center for Drug Evaluation and Research (CDER)  
Center for Biologics Evaluation and Research (CBER)**

**October 2020  
Clinical/Medical**

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# Premenopausal Women with Breast Cancer: Developing Drugs for Treatment Guidance for Industry

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*Contains Nonbinding Recommendations*

*Draft — Not for Implementation*

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*Contains Nonbinding Recommendations*

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1 **Premenopausal Women with Breast Cancer: Developing Drugs for**  
2 **Treatment**  
3 **Guidance for Industry<sup>1</sup>**  
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7  
8 This draft guidance, when finalized, will represent the current thinking of the Food and Drug  
9 Administration (FDA or Agency) on this topic. It does not establish any rights for any person and is not  
10 binding on FDA or the public. You can use an alternative approach if it satisfies the requirements of the  
11 applicable statutes and regulations. To discuss an alternative approach, contact the FDA staff responsible  
12 for this guidance as listed on the title page.  
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14  
15  
16 **I. INTRODUCTION**  
17

18 This guidance provides recommendations to sponsors developing drugs or biological products<sup>2</sup>  
19 regulated by CDER and CBER for the treatment of breast cancer. Specifically, this guidance  
20 includes recommendations regarding the inclusion of premenopausal women, as defined by  
21 serum hormonal levels (including but not limited to follicle-stimulating hormone and estradiol),  
22 in breast cancer clinical trials. The issues of fertility and fertility preservation when treating  
23 premenopausal women with breast cancer are outside the scope of this guidance and are not  
24 addressed.  
25

26 In general, FDA's guidance documents do not establish legally enforceable responsibilities.  
27 Instead, guidances describe the Agency's current thinking on a topic and should be viewed only  
28 as recommendations, unless specific regulatory or statutory requirements are cited. The use of  
29 the word *should* in Agency guidances means that something is suggested or recommended, but  
30 not required.  
31

32  
33 **II. BACKGROUND**  
34

35 Historically, premenopausal women have been excluded from some trials that have investigated  
36 the efficacy of certain drugs that rely upon manipulation of the hormonal axis for the treatment  
37 of hormone receptor (HR)-positive breast cancer. In some cases, separate studies have been  
38 conducted to confirm the benefit in this patient population, which has resulted in delays in the  
39 availability of these therapies for premenopausal women with HR-positive breast cancer.

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<sup>1</sup> This guidance has been prepared by the Oncology Center of Excellence, Center for Drug Evaluation and Research (CDER), and Center for Biologics Evaluation and Research (CBER) at the Food and Drug Administration.

<sup>2</sup> For the purposes of this guidance, references to *drugs* include drugs approved under section 505 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 355) and biological products licensed under section 351 of the Public Health Service Act (42 U.S.C. 262).

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40 Certain groups of drugs such as chemotherapy, immunotherapy, and targeted therapy (which act  
41 independent of the hormonal axis) have similar efficacy in pre- and post-menopausal women  
42 with breast cancer.

43  
44 In patients with HR-positive breast cancer, where drugs are targeting or being combined with  
45 drugs targeting the hormonal axis, FDA believes hormonal drugs administered to premenopausal  
46 women with adequate estrogen suppression are likely to have generally the same efficacy and  
47 safety profile as in postmenopausal women, based on a review of the nonclinical, clinical  
48 pharmacology, and clinical literature. The inclusion of premenopausal women in breast cancer  
49 oncology product development programs will result in more complete clinical information to  
50 inform clinical decision making and bring safe and effective therapies in a timely manner to this  
51 patient population.

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### **III. RECOMMENDATIONS**

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56 Consideration should be given to including premenopausal women in breast cancer drug  
57 development programs.<sup>3</sup> FDA encourages sponsors to discuss their breast cancer drug  
58 development plan with CDER and CBER, as applicable, early in development. FDA  
59 recommends:

60

- 61 • Menopausal status should not be the basis of exclusion from any breast cancer clinical  
62 trial.
- 63  
64 • Premenopausal women<sup>4</sup> with adequate estrogen suppression<sup>5</sup> and postmenopausal  
65 women should be equally eligible and included in clinical trials for drugs or combinations  
66 manipulating the hormonal axis.
- 67  
68 • Stratification of randomization based on menopausal status at study entry may be  
69 appropriate if there are efficacy and/or safety concerns.

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<sup>3</sup> See the final guidance for industry *Male Breast Cancer: Developing Drugs for Treatment* (August 2020) for FDA's recommendations regarding including another patient population (i.e., males) in breast cancer clinical trials. We update guidances periodically. For the most recent version of a guidance, check the FDA guidance web page at <https://www.fda.gov/regulatory-information/search-fda-guidance-documents>.

<sup>4</sup> See the draft guidance for industry *Estrogen and Estrogen/Progestin Drug Products to Treat Vasomotor Symptoms and Vulvar and Vaginal Atrophy Symptoms – Recommendations for Clinical Evaluation* (January 2003). When final, this guidance will represent the FDA's current thinking on this topic.

<sup>5</sup> We acknowledge challenges with defining a cut-off level for estrogen suppression given differences in assays, patient demographics such as weight, medical comorbidities (e.g., polycystic ovarian syndrome), etc.

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- An assessment of the weight of evidence that includes published literature and existing nonclinical data for reproductive toxicity should be provided to allow FDA to determine if reproductive toxicity studies may be necessary for an indication that will include premenopausal women.<sup>6</sup>
  - Information on long-term clinical effects (e.g., bone health, cardiac health) of breast cancer drugs in premenopausal women should be collected during the trial.
  - A gynecologist should be consulted during trial planning and monitoring, as needed.

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<sup>6</sup> For recommendations regarding nonclinical data needed to support clinical trial design and marketing applications, refer to ICH guidance for industry *S9 Nonclinical Evaluation for Anticancer Pharmaceuticals* (March 2010), ICH guidance for industry *S9 Nonclinical Evaluation for Anticancer Pharmaceuticals Questions and Answers* (June 2018), and guidance for industry *Oncology Pharmaceuticals: Reproductive Toxicity Testing and Labeling Recommendations* (May 2019).