



European Commission Initiative on Breast Cancer (ECIBC): European guidelines on breast cancer screening and diagnosis Evidence profile

Healthcare question	Should a threshold of 10% or more vs. 1% or more of cells showing progesterone receptor positivity be used for providing endocrine therapy in women with invasive breast cancer?
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Authors	ECIBC Guidelines Development Group (GDG): Mariangela Autelitano, Bettina Borisch, Mireille Broeders, Xavier Castells, Roberto D'Amico, Edoardo Colzani, Jan Daneš, Stephen Duffy, Patricia Fitzpatrick, Markus Follmann, Livia Giordano, Paolo Giorgi Rossi, Axel Gräwingholt, Solveig Hofvind, Lydia Ioannidou-Mouzaka, Susan Knox, Annette Lebeau, Helen McGarrigle, Lennarth Nyström, Elsa Pérez Gómez, Cecily Quinn, Peter Rabe, Holger Schünemann, Alberto Torresin, Ruben Van Engen, Cary Van Landsveld-Verhoeven, Sue Warman, Kenneth Young. Systematic Review team: Ignacio Ricci Cabello, David Rigau, Pablo Alonso-Coello. JRC Healthcare Quality team: Asli Uluturk, Donata Lerda
Abbreviations	CI: Confidence interval

Certainty assessment							Impact	Certainty	Importance
Nº of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations			
Recurrence free survival									
1 ¹	observational studies ^a	serious ^b	not serious	serious ^c	serious ^d	none	(Honma 2014): tamoxifen vs no endocrine treatment on 5 years recurrence-free survival in PR positive cases according to different thresholds. The following results (reported in terms of HR (95%CI)) were observed: • At >0% threshold: 0.603 (0.390; 0.927) • At 1% threshold: 0.604 (0.366; 0.986) • At 10% threshold: 0.625 (0.351; 1.103) • At 33% threshold: 0.420 (0.194; 0.869) • At 67% threshold: 0.320 (0.272; 0.816)	⊕○○○ VERY LOW	

Certainty assessment							Impact	Certainty	Importance
Nº of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations			
Overall survival									
0							No studies identified	-	
Direct response to endocrine therapy (defined according to World Health Organization criteria as complete response, partial response, no change, or progressive disease)									
0							No studies identified	-	
Adverse effects of endocrine therapy									
0							No studies identified	-	
Health-related quality of life									
0							No studies identified	-	

Explanations

- Retrospective cohort study
- Honma 2014 presented serious risk of bias due to the nature of the study design (retrospective cohort study), which resulted in an increased risk of bias in terms of the selection of participants to the study and in terms of the classification of interventions.
- Honma 2014 did not report direct comparisons of thresholds $\geq 1\%$ vs $\geq 10\%$, but rather conducted subgroup analyses according to different thresholds of the comparison treatment vs no treatment. Treatment effect according to the different subgroups (1-9%; 10-33%; 33-67%) was not reported either. In addition, available evidence is exclusively based on a single drug (tamoxifen). The expert group should agree on whether these issues result or not in serious indirectness.
- Wide confidence intervals. Number of events not reported.

References

- Honma, N., Horii, R., Iwase, T., Saji, S., Younes, M., Ito, Y., Akiyama, F.. Proportion of estrogen or progesterone receptor expressing cells in breast cancers and response to endocrine therapy. Breast; Dec 2014.