A.12 Cyclin-dependent kinase 4/6 inhibitors – HR-positive/ HER2-negative advanced breast cancer – EML **Draft recommendation** ☐ Recommended ⋈ Not recommended Justification: Not cost effective Does the proposed medicine address a \boxtimes Yes relevant public health need? □ No ☐ Not applicable Comments: Breast cancer is the leading cause of morbidity, disability, and mortality in women, worldwide. In 2018, 60% of the breast cancer incident cases and two-third of the related mortality occurred in low- and middle-income countries. Does adequate evidence exist for the efficacy/effectiveness of the medicine □ No for the proposed indication? ☐ Not applicable (this may be evidence included in the Comments: application, and/or additional evidence identified during the review process) CDK4/6 inhibitors showed a significant improvement of the survival outcome and for some of them, of the quality of life Adding a CDK4/6 inhibitor to endocrine therapy appeared to be provide relative benefits in terms of PFS and OS The selection of patients eligible for treatment with CDK4/6 inhibitors (CDK4/6i) is not based on a predictive biomarker or specific molecular profile. Does adequate evidence exist for the safety/harms associated with the □ No proposed medicine? ☐ Not applicable (this may be evidence included in the Comments: application, and/or additional evidence identified during the review process) The use of CDK4/6i, in fact, is associated with a predictable, reversible, and generally not infection- prone neutropenia – related to the cell cycle effects on the hematopoiesis of the cell cycle blockade the occurrence of febrile neutropenia has been registered in <1% of the trial population, with all these compounds

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Are there any adverse effects of	⊠ Yes
concern, or that may require special monitoring?	□ No
Ü	□ Not applicable
	Comments:
	neutropenia
Are there any special requirements for	⊠ Yes
the safe, effective and appropriate use of the medicines?	□ No
	□ Not applicable
(e.g. laboratory diagnostic and/or monitoring tests, specialized training for	Comments:
health providers, etc)	 CBC control at the begin of each cycle and, precautionarily after 2 weeks for the first 2 cycles
	EMA and FDA recommend an initial ECG monitoring for patients receiving
	ribociclib
Are there any issues regarding cost, cost-effectiveness, affordability and/or	⊠ Yes
access for the medicine in different	□ No
settings?	☐ Not applicable
	Comments:
	Most of the studies were based on high-income countries
	 Cost- effectiveness was commonly not met with CDK4/6 inhibitors, related to their high cost
Are there any issues regarding the	□ Yes
registration of the medicine by national	
regulatory authorities?	⊠ No
(e.g. accelerated approval, lack of	□ Not applicable
regulatory approval, off-label indication)	Comments:
Is the proposed medicine	☐ Yes
recommended for use in a current WHO guideline?	⊠ No
	□ Not applicable
(refer to: https://www.who.int/publications/who-	Comments:
guidelines)	