Beam Deceleration in the Operation of Gated Beam Extraction with a Patient Respiration, N. ARAKI, M. KANAZAWA, M. KUMADA, K. NODA, S. MINOHARA, S. SATO, E. TAKADA, M. TORIKOSHI, S. YAMADA, NIRS, A. ITANO, Hyogo Pref. Gov., and N. TSUZUKI, TOSHIBA - In treating a tumour moving along with respiration of a patient, gated beam extraction with the respiration is planned by use of rf-knockout extraction. In this operation there is unextracted beam, because the period of the patient respiration will vary in contrast with the constant operation cycle of the HIMAC synchrotron. To diminish the radiation level with the unextracted high energy beam, we have adopted the deceleration of this beam down to the injection energy. In the preliminary test we have achieved satisfactory efficiency of about 80% without beam feedbacks of the phase and the position, though the efficiency is not so high after turning on the rf-knockout power. In this paper the modification of the RF system and the operation result will be presented.