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Christopher Jankowski* (cjankows@math.upenn.edu), Department of Mathematics, 209 South 33rd Street, David Rittenhouse Lab., Philadelphia, PA 19104, and **Daniel Markiewicz** and **Robert Powers**. *Prime E_0 -semigroups*.

A semigroup $\alpha = \{\alpha_t\}_{t \geq 0}$ of $*$ -endomorphisms of $B(H)$ is called an E_0 -semigroup if it is weakly continuous in t and $\alpha_t(I) = I$ for all $t \geq 0$. We say α is prime if, whenever α is cocycle equivalent to $\beta \otimes \gamma$ for some E_0 -semigroups β and γ , it follows that β or γ is a semigroup of $*$ -automorphisms. By considering E_0 -semigroups constructed using Powers' theory of CP-flows, we exhibit an uncountable family of E_0 -semigroups of type II_0 . This is joint work with Daniel Markiewicz and Robert Powers. (Received September 22, 2011)