Jan Spakula* (jan.spakula@soton.ac.uk), School of Mathematics, University of Southampton, Southampton, SO17 1BJ, United Kingdom, and Jiawen Zhang. Quasi-locality and Property A.

We prove that if a metric space $X$ has Yu’s Property A, all quasi-local operators on $\ell^p X$ belong to the Roe algebra, i.e. are approximable by operators with finite propagation. ($A \in B(\ell^p X)$ is quasi-local, if for any $\epsilon > 0$, there exists $R \geq 0$, such that for all $f, g \in \ell^\infty X$ with $\|f\|_\infty, \|g\|_\infty \leq 1$ and $\text{dist}(\text{supp}(f), \text{supp}(g)) > R$, we have $\|gAf\| < \epsilon$.)

Along with the main ingredients of the proof, we derive yet another characterisation of Property A (akin to operator norm localisation for quasi-local operators); and point out that unexpectedly, the case of $p = 0, 1, \infty$ does not require Property A. (Received January 28, 2019)