Abstract. This paper studies knots that are transversal to the standard contact structure in $\mathbb{R}^3$, bringing techniques from topological knot theory to bear on their transversal classification. We say that a transversal knot type $\mathcal{TK}$ is *transversally simple* if it is determined by its topological knot type $\mathcal{K}$ and its Bennequin number. The main theorem asserts that any $\mathcal{TK}$ whose associated $\mathcal{K}$ satisfies a condition that we call *exchange reducibility* is transversally simple.

As a first application, we prove that the unlink is transversally simple, extending the main theorem in [El]. As a second application we use a new theorem of Menasco [Me] to extend a result of Etnyre [Et] to prove that all iterated torus knots are transversally simple. We also give a formula for their maximum Bennequin number. We show that the concept of exchange reducibility is the simplest of the constraints that one can place on $\mathcal{K}$ in order to prove that any associated $\mathcal{TK}$ is transversally simple. We also give examples of pairs of transversal knots that we conjecture are *not* transversally simple.