SQ injections can be administered easily to most species. Most SQ injections are administered on the scruff of the neck, with the exception of the rabbit. The needle is inserted between the folds of skin into the base of the triangle that is formed when traction is applied to the skin overlying the animal's scruff on the back of the neck. The syringe's plunger should be retracted to verify that a vacuum is created and no blood is aspirated. Subsequently, the plunger is depressed to administer the material. Several sites over the animal's back should be used if larger volumes must be administered. In general, needles should be the smallest diameter possible for the solution to be administered.

Larger volumes can be injected into the hamster due to the considerable amount of loose skin overlying the injection site. Larger volumes can also be injected into the guinea pig due to the animal's larger size. Rabbits can likewise handle large volumes due to the laxity of their dorsal skin and the large area into which the material can be administered. In the rabbit, however, injections should not be administered directly over the neck as this is the site where the animal is scruffed for restraint.