**Use of a Centrifuge**

Centrifugation is the best available method for rapidly separating cells from the liquid portion (serum/plasma) of blood. Separation is desirable for any test specifying serum or plasma in

its requirements. See the recommendations below as guidelines when centrifuging specimens. If your centrifuge does not have an automatic timer, care must be taken not to let the centrifuge run for extended periods of time. The chambers can become quite warm and potentiallycompromise the integrity of the specimen(s).

**Centrifugation Notes**

1. Blood specimens should be centrifuged within 60 minutes of collection.
2. The recommended time for centrifugation is based on the manufacturer’s recommendations for different tubes and centrifuges.
3. A “horizontal head” centrifuge is preferred to yield a complete and firm gel barrier when separating specimens in SST’s (Serum Separator Tube). A “fixed angle” centrifuge makes a poor, thin seal that is prone to leaks and cell contamination of the serum/plasma, often times resulting in a re-spin and possibly damaging the specimen.
4. DO NOT re-centrifuge specimens. Re-centrifugation of blood specimens can result in inaccurate test results.
5. Gold Top/SST: Tube must be inverted minimum of five times**,** allowed to stand upright for minimum 30 minutes or until a clot is formed. The specimen is then centrifuged per the manufacturer’s recommendations. When the collection tube contains a clot activator (Orange top Rapid Clot Tube), the minimum wait time before centrifugation could be as short as 5 minutes or until a clot is formed.
6. PLASMA: The anticoagulated specimen may be centrifuged within minutes of collection.
7. When needed, careful pipetting of serum or plasma into an appropriately labeled container must be completed after centrifugation. Some blood collection tubes contain a gel material. Once centrifuged, these tubes will have the gel barrier between the cells and serum/plasma. Serum/plasma can be stored on the gel barrier for up to 48 hours with the tube stoppered. After centrifugation, the gel should be intact with the cells and serum/plasma completely separated.
8. Serum/plasma should be securely covered at all times to eliminate possible contamination and to prevent evaporation.
9. Separated, cell-free serum/plasma is ready for testing. Tests should be conducted within 12 hours of collection. If this is not possible, the specimen should be refrigerated for no longer than 48 hours in a sealed container. Specimens that need to be kept for longer than 48 hours should be frozen at -20°C in a freezer that does not have a defrost cycle.
10. Serum/plasma sent to reference laboratories must be submitted in accordance with

the laboratory’s recommendations.