**Fibrinogen, Clot Time and Fibrinolysis Measurements by T2MR®**

**Background**
Fibrinogen, a major component of the blood clot, is a critical factor in the development of many diseases, including heart disease and stroke. The accurate measurement of fibrinogen levels and clot formation times is essential for the management of these conditions. T2MR® is a cutting-edge technology that measures the spin-spin (T2) relaxation times of hydrogen nuclei, allowing for precise and non-invasive measurements of fibrinogen and clot formation.

**T2MR® Technology**
T2MR® relies on proven magnetic resonance technology and has already proven to be highly accurate in clinical settings. The device can measure clot formation times and fibrinogen levels in whole blood samples, providing healthcare practitioners with valuable information to manage their patients more effectively.

**Results and Applications**
Results from T2MR® measurements may allow healthcare practitioners to manage their patients more effectively by quantifying clot formation times and fibrinogen levels. This information can be used to optimize transfusion protocols and guide treatment decisions. In most cases, testing for these parameters will be performed in a multiplexed format to provide comprehensive hemostasis testing.

**Methods**
- **T2MR® Measurements**
  - Measurement of Hemostasis Parameters
  - Measurement of Fibrinogen Parameters

**Clothing Time**
Cloth time (CT) is a measure of the time required for a clot to form in whole blood. T2MR® can measure CT in as little as 1 minute, providing a rapid and efficient method for assessing clot formation.

**Fibrinogen**
Fibrinogen is a key component of the blood clot that is crucial for thrombus formation. T2MR® can measure fibrinogen levels in whole blood samples, offering a non-invasive method for assessing fibrinogen concentration.

**Platelet Activity**
Platelet activity plays a critical role in the development of thrombi. T2MR® can measure platelet activity in whole blood samples, providing valuable information for the management of hemostatic disorders.

**Fibrinolysis**
Fibrinolysis is the process of clot dissolution, which is critical for maintaining hemostasis and preventing excessive bleeding. T2MR® can measure fibrinolysis in whole blood samples, offering a non-invasive method for assessing fibrinolytic activity.

**Conclusions**
T2MR®’s performance attributes are consistent with enabling significant research applications, drug development and biomarker studies. The technology is simple to use, allowing analysis to be done in virtually any setting, including research laboratories and core and satellite laboratories, as well as in the field. T2MR® can identify novel biomarkers, as evidenced by the recent discovery of novel clot biology of polyhedral red blood cells.

**References**