**Generating the data for Joint Modeling with NMRE**

**For Model I:**

The survival model is

With ,

With and , if

If, then

**For Model II:**

The survival model is

With ,

With and , if

If, then

**Generating the data for Joint Modeling with LMEM**

**For Model I:**

where and .

The survival model is (

With ,

With and , if

If, then

**For Model II:**

The survival model is

With ,

With and , if

If, then