

Figure S1: a) Change in tidal volume in preterm lambs ventilated with 100% inspired oxygen preterm lambs (closed square), 21% oxygen preterm lambs (open diamond), titrated oxygen (closed circle). The tidal volumes were not available in term lambs.

b) Change in arterial carbon dioxide (PaCO₂ in mmHg) are shown in this figure. The 100% inspired oxygen preterm lambs (closed square), 21% oxygen preterm lambs (open diamond), titrated oxygen (closed circle) were statistically different from term 21% oxygen controls (triangle) (*p<0.01 by ANOVA).

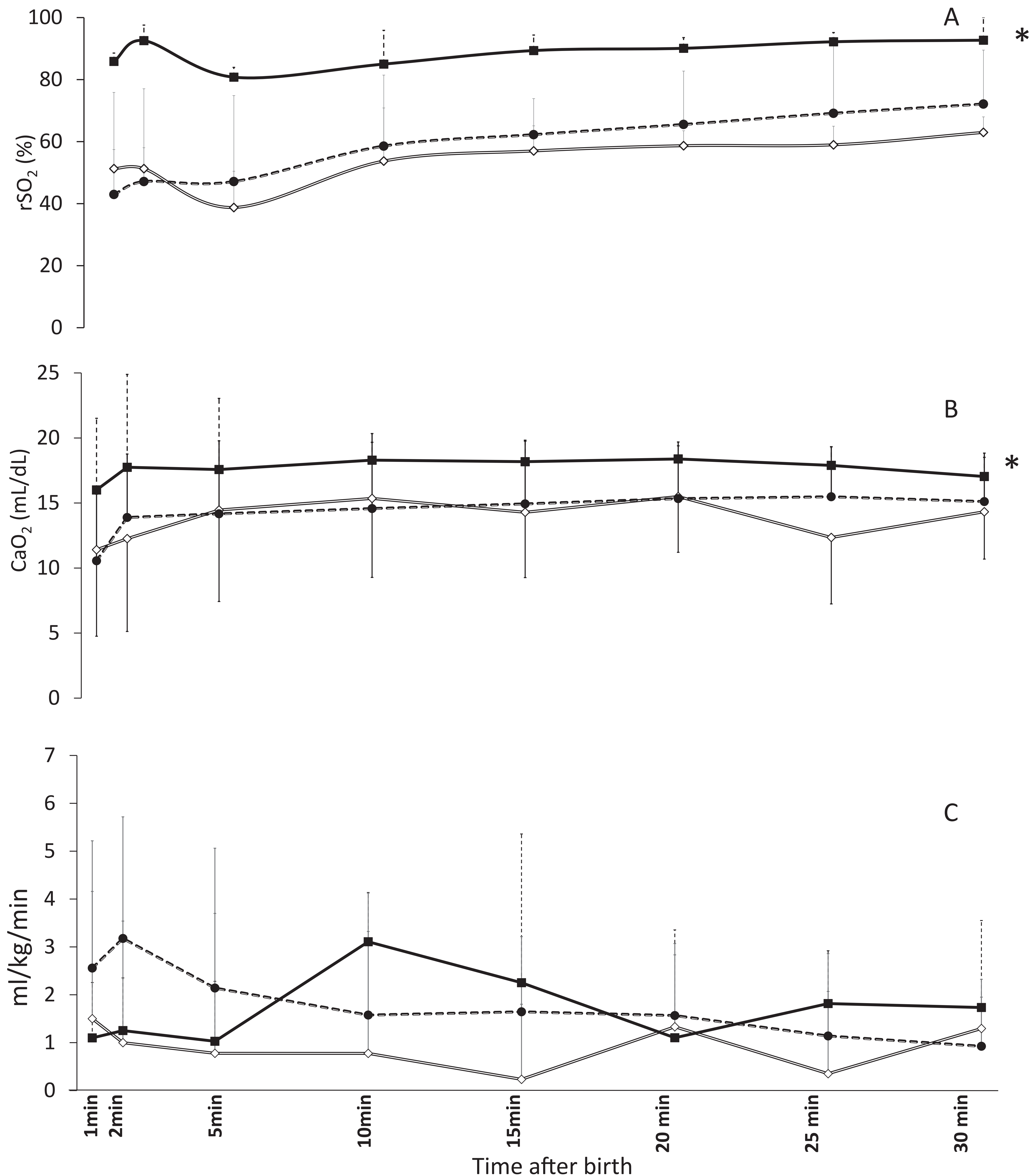


Figure S2: a) The cerebral regional saturations (CrSO₂) are shown here. The CrSO₂ were statistically different in 100% O₂ (closed square) compared to 21% oxygen (open diamond) and titrated oxygen (closed circle) preterm lambs. Note that term lambs did not have CrSO₂ data. *p<0.01 by ANOVA between 100% preterm lambs and the rest.

b) The carotid arterial oxygen content (CaO₂ mL/dL) are shown here. The CaO₂ were statistically different in 100% O₂ (closed square) compared to 21% oxygen (open diamond) and titrated oxygen (closed circle) preterm lambs. Note that term lambs did not have CaO₂ data. *p<0.01 by ANOVA between 100% preterm lambs and the rest.

c) The oxygen extraction in preterm lambs are shown in this figure. The oxygen extraction in 100% oxygen preterm lambs (closed square), 21% oxygen preterm lambs (open diamond) and titrated oxygen (closed circle) were not different. Note that term lambs did not have the oxygen extraction calculated.