Cardiac Surgery, especially in connection with cardiopulmonary bypass (CPB), is often followed by an impaired myocardial function. Basically we have different types of support; mechanical or medical, and inotropic treatment is only one of several options. However, the literature do not reveal evidence based fixed prescription how to handle weaning from CPB and consequently weaning is guided by factors like patients general condition, concurrent diseases, monitoring status and the local policy. Choosing the right drug is complicated as many factors influence an uncomplicated weaning from bypass – therefore the talk will focus on different aspects of this decision pattern.
and makes room for simple models. The first is the correlation between cardiac index (CI) and central venous saturations (SvO₂). There is evidence that CI < 2.0 l/min and SvO₂ < 50 needs some kind of support. However the model should primarily be used to set individual goals for the individual patients.

A simple treatment model can be established from the hemodynamic measurements. The principal task is to set the cut off values for treatment dependent of t.ex. pre-operative status and age. Treatments can either mechanical (intra aortic balloon pumping and pacemakers) or medical support (inotropics and/or vasodilatators and/or vasoconstrictors).

All inotropic drugs increase both oxygen delivery and oxygen consumption, and one has to recall that the increase in consumption could deteriorate the haemodynamics. Basically most inotropics and vasoconstrictors have the same mode of action, although with different preference for organ receptors, and thus different combined hemodynamic effect. From the literature it seems that the one of the predominant factors is to find the optimal drug which increase oxygen delivery more than oxygen consumption.

During weaning from CPB the time with impaired haemodynamics is often relatively short, and it is most likely that the most patients will do fine without any medications, or at least only small bolus doses of adrenaline or noradrenaline. However, if there is need for continuous support, Milrinone or Amrinone seems to be optimal inotropics. However the severe dilatatory effect most often requires supplement with t.ex. noradrenaline, which could neutralize the positive effects. Different modalities will be presented.