

Outline

Rationale for Sodium Bicarbonate Use

Current Guidelines

Adoption of Guidelines in North America

Basic Overview of Current Evidence

Early 1976 Study in Dog Model

- Bishop & Weisfeldt looked at arterial pH and PCO_2 with and without sodium bicarbonate administration after inducing Vfib

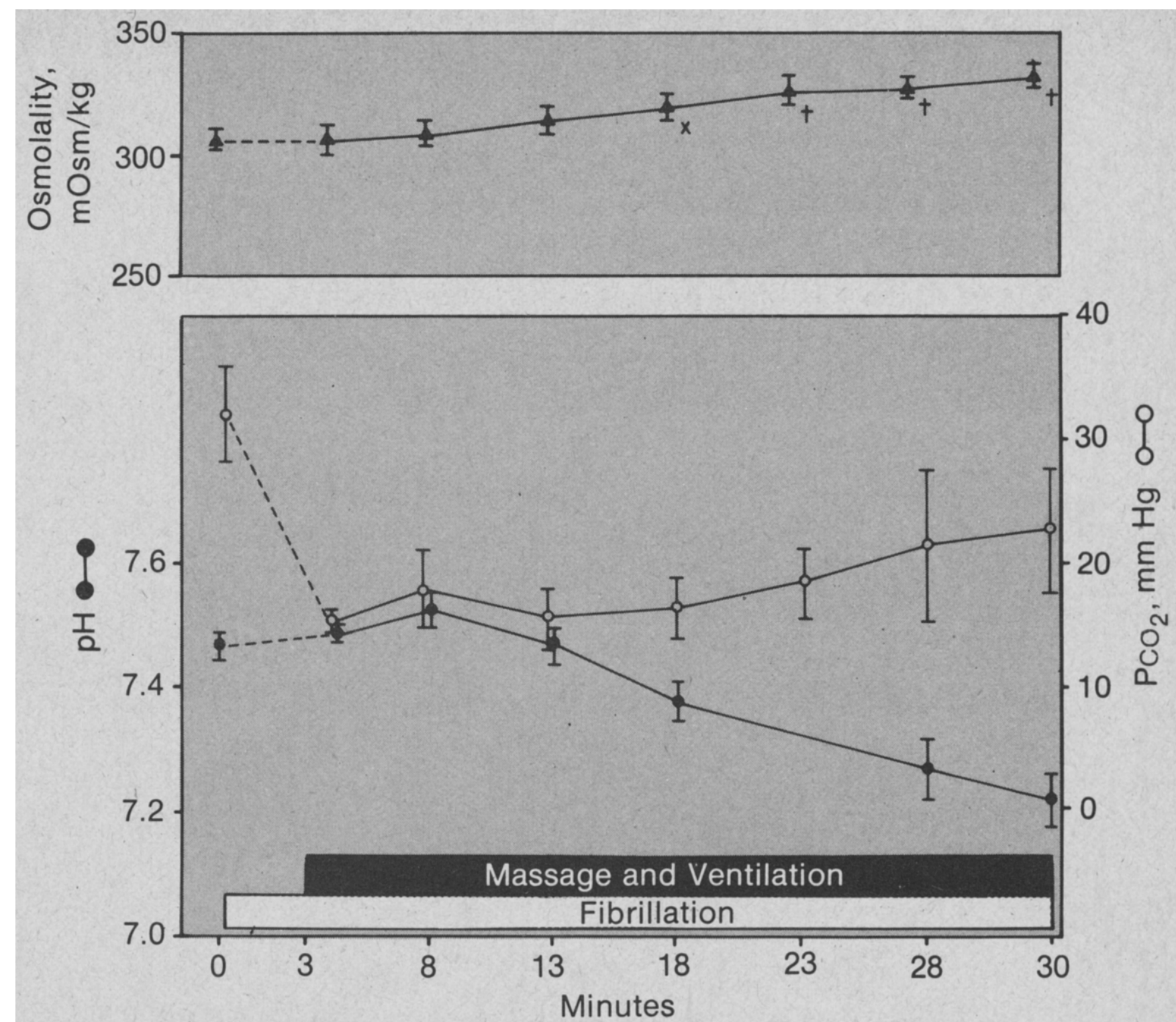


Fig 1.—Arterial pH, PCO_2 , and osmolality in seven dogs prior to and during arrest and resuscitation without bicarbonate administration. Ventilatory rate and volume were constant throughout. PCO_2 fell with onset of resuscitation despite constant ventilation. Progressive rise in osmolality throughout is statistically significant (x's indicate $P < .05$; † $P < .01$). Bars indicate standard error of mean.

Fig 2.—Arterial pH and PCO_2 in nine dogs prior to and during arrest and resuscitation. At one minute of resuscitation, 1.0 mEq/kg of 7.5% sodium bicarbonate was administered rapidly via superior vena cava. Following sodium bicarbonate administration, pH and PCO_2 rose rapidly, then declined to control level (x's indicate $P < .05$; † $P < .01$).

