

ACCURATE APGAR SCORING

A proposal for a new method of evaluation
of the newborn infant.

A SCIENTIFIC EXHIBIT PRESENTED AT
THE TWENTY-SECOND POSTGRADUATE ASSEMBLY
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SIGNIFICANCE OF THE APGAR SCORE

As in other pathological conditions, treatment of newborn depression rests upon accurate diagnosis. The various physical signs are conveniently summarized by the Apgar Score. This has little relation to oxygenation but does reflect the degree of acidosis. (Fig. 1) A score from 7-10 generally applies to a "vigorous", 4-6 to a "depressed" and 0-3 to a "markedly depressed" infant. (1) (2) (3).

In addition to the predictive value for survival, there is a relationship between the Score and the development of neuromuscular deficits in childhood. Fig. (2-3)

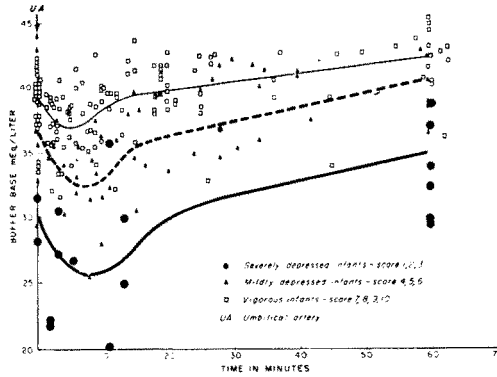
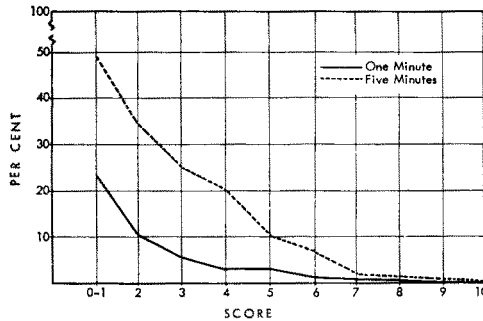


Fig. 1 Comparison of vigorous and depressed infants relating APGAR SCORE to acidosis. (5)



Percentage of 27-day neonatal mortality within each score at 1 and 5 minutes.

Fig. 2 Apgar Scores and outcome of newborn. (3)

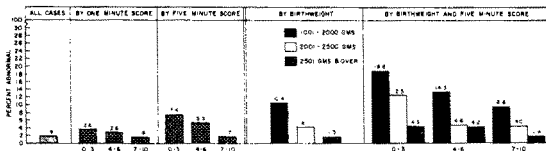


Fig. 3 Percentage of neurological abnormality at 1 year, by 1 and 5 minutes score, by birth weight and by combination of birth weight and 5 minutes score. (3)

"Nine months observation of the mother surely warrants one minute observation of the baby"

V. Apgar

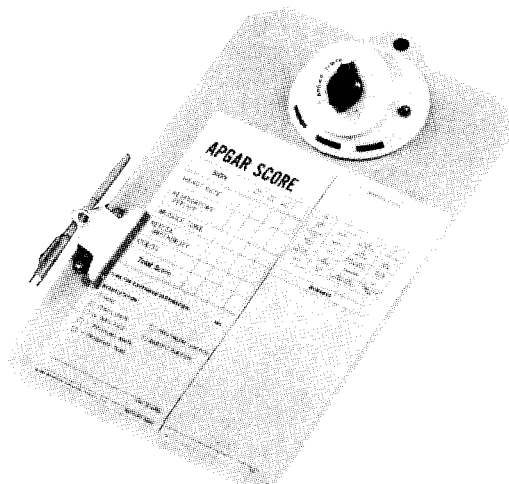
TECHNIQUE OF "SCORING"

- A) Observations are made exactly at one, five, and ten minutes after delivery of the entire infant.
- B) The modalities listed are obtained according to the table below and appropriate values assigned.

SIGN	0	1	2
HEART RATE	ABSENT	SLOW (BELOW 100)	OVER 100
RESPIRATORY EFFORT	ABSENT	SLOW IRREGULAR	GOOD CRYING
MUSCLE TONE	FLACCID	SOME FLEXION OF EXTREMITIES	ACTIVE MOTION
REFLEX IRRITABILITY	NO RESPONSE	GRIMACE	CRY
COLOR	BLUE PALE	BODY PINK EXTREMITIES BLUE	COMPLETELY PINK

- C) In order to be consistent, and to gain the full advantage of proper treatment and prognosis, it is imperative that scores be recorded in their proper time sequence.

The "APGAR SCORE TIMING UNIT" (shown below) has made such temporal accuracy possible.



APGAR SCORE SHEET

PITFALLS AND PROBLEMS

1. Subjectivity of persons involved in delivery.
2. Making tabulation at accurate time intervals.
3. Difficulty of monitoring heart beat when working alone.
4. Respiratory effort may be difficult to assess.
5. Cyanosis may persist peripherally in many "healthy" infants.

SUGGESTED EQUIPMENT FOR INFANT CARE AND RESUSCITATION IN THE DELIVERY ROOM

1. Timer and APGAR SCORE sheet
2. Laryngoscope
3. Airways
4. Cole endotracheal tubes of various sizes
5. Suction
6. Infant warmer with thermostat
7. Oxygen — both positive pressure and flow
8. Umbilical vessel canula
9. Sodium Bicarbonate ampoules
10. Epinephrine ampoules

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David J. Hammer, M.D.
Raymond Portu, M.D. Jewish Hospital and Medical
Arthur Santiago, M.D. Center of Brooklyn
Miguel A. Colon-Morales, M.D. Teachers Hospital
Hato Rey, Puerto Rico

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