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See Article page 218.

Commentary: Technical excellence is necessary but not sufficient

David P. Bichell, MD

A wise elder surgeon observed that the outcome of an arterial switch procedure depends mostly on operative technical performance, whereas the outcome of the Norwood procedure depends in near equal part on the postoperative art of anticipation and the mitigation of instability before it happens. If a good surgical outcome can be divided into contributing components, then surely not all operations are equal. For some lesions, outcomes depend most heavily on a postoperative flight plan followed by a dedicated team that can recognize an imbalance and correct it before compounding reactions propagate risk.

In this issue of the *Journal*, Nathan and colleagues¹ describe an ambitious prospective study of the Residual Lesion Score (RLS), a refinement of the technical performance score,^{2,3} hypothesizing that a postoperative echocardiogram may be a measure not only of operative adequacy, but may serve as a composite assay that speaks to preoperative diagnostic acumen, intraoperative decision making, surgical technical prowess, and postoperative complications. The study purports to discover which structural

CENTRAL MESSAGE

A Residual Lesion Score that uses a discharge echocardiogram of the repaired heart to predict ultimate outcome may be strengthened by the addition of measures beyond just heart architecture.

subcomponents of a repair have the strongest association with outcome measures based on the RLS.

The RLS is an undoubtedly a valuable outcome predictor, and the proposed study will reveal refinements that widen its scope. Future iterations will likely find cause to include additional elements beyond a snapshot of the architecture of the repaired heart.

The current RLS is a structural assay, not functional. Diastolic or systolic ventricular dysfunction from incomplete myocardial protection or prolonged cross-clamp time, phrenic nerve or vocal cord paralysis, bronchomalacia, and coronary compression are among the factors that are not scored by the current RLS but deeply affect postoperative and long-term outcomes. It is encouraging to anticipate the inclusion of some measures of ventricular and respiratory function in the RLS to broaden its predictive value.

Although residual anatomic lesions predict longer convalescence and thus more opportunity for complications to befall the patient, neither the structural nor the functional

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measures of a repair likely can identify many important modifiable process shortcomings. Irrespective of the technical result of a surgical correction, intraoperative and perioperative complications occur at a steady rate, and ultimate patient outcome depends more strongly on processes that reduce the "failure to rescue" than on those that reduce the incidence of complications.⁴ Ventilator-associated pneumonia, blood or urinary infection, and arrhythmias are important complications, possibly unrelated to intracardiac structural adequacy, and whether RLS can shine predictive light on these outcomes remains to be seen. Perhaps a future iteration of the RLS will include scoring of structure, function, and intensive care unit performance.

It is appealing to learn that a discharge echocardiogram has the potential to serve as a composite measure of multiple elements in the course of care after surgery. As the scoring system recognizes more elements beyond technical

performance of the surgeon and encompasses a more holistic view of the patient's course, the RLS may grow in importance.

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See Article page 218.

Check for updates

Commentary: Relational coordination... a mechanism to improve data interoperability

Aaron J. Weiss, MD, and Tara Karamlou, MD, MSc

Dr Jody Hoffer Gittel has spent her career popularizing the theory of relational coordination, which proposes that interdependent work for organizations is best optimized by "frequent high quality communication supported by relationships of shared goals, shared knowledge and mutual respect."¹ She proposes that relational coordination can unite fragmented organizations to facilitate excellence in outcomes and has applied this concept to various industries, including the field of health care. Furthermore, she contends that we can provide systemic change that accelerates

Aaron J. Weiss, MD, and Tara Karamlou, MD, MSc

CENTRAL MESSAGE

The field of health care suffers from a lack of data interoperability, resulting in untold amounts of lost information, EMR fatigue, financial waste, and caregiver burnout.

excellence in performance by using relational coordination to strengthen the weak links and reduce the inefficiencies that exist in the health care industry.

Medical professionals are undoubtedly familiar with the inherent bureaucratic and technological inefficiencies present in contemporary health care systems. Much of this inertia can be attributed to a lack of semantic

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