

PLASTIC SURGERY JOURNAL CLUB

Needs assessment/Gap analysis

The medical literature in plastic surgery has expanded greatly over recent years and even in a limited specialty area, one cannot read the overwhelming number of articles published or kept abreast of the latest developments. This journal club will be a useful educational tool that will increase the participants' knowledge base by reviewing and discussing pertinent medical literature. Articles from major peer-reviewed surgical journals, particularly Plastic and Reconstructive Surgery®, are reviewed in detail. The articles are assessed as to their validity in terms of content and statistical analysis.

The Journal Club meets regularly to discuss the strengths, weaknesses and clinical applications of selected articles from the medical literature. The goal is for attendees to: enhance their experience with evidence-based medicine; critically evaluate and assimilate information on advances and techniques that impact plastic surgery; and, plan to use this evidence to improve practice and patient care. Interpersonal and communication skills are expected to improve in an a learning environment conducive to a community of practice (COP).

DESCRIPTION OF LEADING JOURNAL: Plastic and Reconstructive Surgery® has been accepted worldwide as the leading, consistently excellent reference for every specialist who uses plastic surgery techniques and procedures. The Journal brings its readers the most recent, up-to-date information for the practice of both reconstructive and cosmetic plastic surgery authored by many of the most highly respected, experienced plastic surgeons within the specialty today. Twice yearly, the Journal expands its in-depth coverage by publishing a supplement on a subject of particular interest (most recently Botulinum Toxin Type A). The journal endeavors to cover all aspects of the specialty including scientific research, clinical application, and medicolegal implications.

Examples and descriptions of topics selected from the March 2010 issue to address specific areas of knowledge gaps, based on current and emerging techniques and technologies, and scientific evidence:

1. **Breast reconstruction:** Gap: How to perform breast reconstruction when abdominal fatty tissue is inadequate. Recommendation: The field of breast reconstruction continues to evolve. The deep inferior epigastric perforator (DIEP) flap is a well-described means of providing natural tissue reconstruction with an attendant goal of minimizing damage in the abdominal donor site. Stacked DIEP free flap breast reconstruction is a reproducible, safe, and innovative yet technically demanding solution for patients seeking autogenous breast reconstruction with otherwise inadequate abdominal fatty volume.
2. **Epidemiology of cleft lip/cleft palate:** Gap: Why do results vary between teaching and non-teaching hospitals? Recommendations: Available reports on the epidemiology of cleft lip, cleft palate, and cleft lip-cleft palate have been numerous yet inconsistent, and have originated only from institutional or regional studies. The need for current national data and the recognition of recent trends exists.
3. **Role of the keystone flap:** Gap: Can the keystone flap be applied to large defects of the trunk and extremities, obviating the need for either microsurgical techniques or extensive operative time while achieving primary wound healing? Recommendation: Despite minor complications, the 97 percent reconstructive success rate compares well to published rates of microsurgical tissue transfers but has several advantages: short operative times, high reproducibility, ease of use, and favorable aesthetic outcome. The

authors conclude that the keystone flap is a reliable and effective reconstructive surgical technique for reconstruction of soft-tissue defects.

SUPPLEMENTAL NEEDS ASSESSMENT

Price DW, Felix K. Journal Clubs and Case Conferences: From Academic Tradition to Communities of Practice. *J Cont Educ Health Prof*, 28(3):123–130, 2008

Selected excerpts, including references

Journal Clubs (JCs) and Case (“Morbidity and Mortality”) Conferences (CCs) are staples of graduate and continuing medical education (CME). *AMA category 1 CME credit*TM can be awarded for such conferences.¹

Adults learn most effectively when faced with meaningful problems they need to solve.² Schoen theorized that health professionals reflect on past experiences to frame important personal learning questions (reflection on action). They then seek information (including colleagues’ experiences) and think about how to apply it. When subsequently faced with a similar situation, health professionals then consider the applicability of the newly learned information (reflection in action).³ Constructivist theories posit that learning occurs as individuals actively assimilate new knowledge with previous experience;⁴ social learning theories hold that knowledge is shaped by interactions with respected others in similar environments or situations.⁵ **It therefore seems that JCs and CCs, structured as social learning activities for discussing new knowledge in the context of previous and current experience, could lead to new learnings that might translate into clinical practice.**

A *community of practice* (COP) is “a group of people who share an interest in a domain of human endeavor and engage in collective learning that creates a bond among them.”⁶ COPs are self-selected and self-organized around a common interest, domain, or competence. **They allow individuals to share evidence, ideas, tacit (“how-to”) knowledge, and practical experience in a safe environment for continuous learning.**⁷ COPs are meant to be interactive; as opposed to a lecture or a meeting intended solely to provide information, interactivity in continuing education increases the likelihood that learnings will be translated into practice.^{8,9} **COPs provide opportunities for sequenced learning that can be tried, modified, and shared with the group. Individuals support each other’s learnings and use the group to validate their own experiences.** Effective facilitation is thought to enable translation of learning into practice.¹⁰

References

¹ AMA Physician’s Recognition Award Booklet, 2006 revision. Accessed November 27, 2007, at: <http://www.ama-assn.org/ama/pub/Category/15889.html>.

² Knowles MS, Holton EF, Swanson EF. *The Adult Learner: The Definitive Classic in Adult Education and Human Resource Development*. 6th ed. Burlington, Mass: Elsevier; 2005.

³ Schoen DA. *Educating the Reflective Practitioner: Toward a New Design for Teaching and Learning in the Professions*. San Francisco, Calif: Jossey-Bass; 1987.

⁴ Vygotsky L. *Mind in Society: The Development of Higher Psychological Processes*. Cambridge, Mass: Harvard University Press; 1978.

- ⁵ Ormrod JE. *Human Learning*. 3rd ed. Upper Saddle River, NJ: Prentice-Hall; 1999.
- ⁶ Wenger E, McDermott R, Snyder W. *Cultivating Communities of Practice: A Guide to Managing Knowledge*. Cambridge, Mass: Harvard Business School Press; 2000.
- ⁷ Parboosingh JT. Physician communities of practice: Where learning and practice are inseparable. *J Contin Educ Health Prof*. 2002;22:230–236.
- ⁸ Mazmanian PE, Davis DA. Continuing medical education and the physician as learner: Guide to the evidence. *JAMA*. 2002;288:1057–1060.
- ⁹ Davis D, O'Brien MAT, Freemantle N, Wolf FM, Mazmanian P, Taylor-Vaisey A. Impact of formal continuing medical education: Do conferences, workshops, rounds, and other traditional continuing education activities change physician behavior or health care outcomes? *JAMA*. 1999;282:867–874.
- ¹⁰ O'Brien MA, Freemantle N, Oxman AD, Davis DA, Herrin J. Continuing education meetings and workshops: Effects on professional practice and health care outcomes. *Cochrane Database Syst Rev*. 2001;1.Art. No.: CD003030.

Statistical data from the American Society of Plastic Surgeons 2010 Report

Percentage change 2010 vs. 2009

- 13.1 million cosmetic procedures ↑ 5%
- 1.6 million cosmetic surgical procedures ↑ 2%
 - 11.6 million cosmetic minimally-invasive procedures ↑ 5%
- 5.3 million reconstructive procedures ↑ 2%

2010 Top 5 Reconstructive Procedures

Reconstructive 2010 vs. 2009

- | | |
|-----------------------|------|
| Tumor removal | ↑ 2% |
| Laceration repair | ↑ 7% |
| Scar revision | ↓ 6% |
| Hand surgery | ↓ 4% |
| Breast reconstruction | ↑ 8% |