

7-1-2009

Use of medications for depressive disorders and LASIK

John W. Potter

Recommended Citation

Potter, John W. (2009) "Use of medications for depressive disorders and LASIK," *ADR Bulletin*: Vol. 11: No. 3, Article 6.
Available at: <http://epublications.bond.edu.au/adr/vol11/iss3/6>

This Article is brought to you by epublications@bond. It has been accepted for inclusion in ADR Bulletin by an authorized administrator of epublications@bond. For more information, please contact [Bond University's Repository Coordinator](#).

**Preventative medical dispute resolution**

Use of medications for depressive disorders and LASIK

John W Potter, OD**Introduction**

In an article published in *The News & Observer* on 3 February 2008 Sabine Vollmer wrote in a story picked up by many other news sources,

Patients who undergo vision-correcting laser eye surgery sign a release form with an extensive list of risks, but some researchers and former patients say a potential complication is not mentioned: depression that can lead to suicide.¹

Subsequently, the US Food and Drug Administration (FDA) held a public Ophthalmic Devices Panel of the Medical Devices Advisory Committee meeting in Gaithersburg, MD on 25 April 2008, where depression, suicide ideation and suicide were discussed by patients, their advocates and others. The general function of the committee is to provide advice and recommendations to the agency on FDA's regulatory issues.²

There have been many other news stories and reports about LASIK surgery and postoperative issues since Sabine Vollmer first reported the risk of depression, suicide ideation and suicide. However, TLC Laser Eye Centers (TLC) provides facilities where a great number of LASIK surgeries are performed and, as such, we are obligated to be what Michael Porter and Elizabeth Olmsted-Teisberg in their groundbreaking book *Redefining Health Care* call 'early movers'. They state,

Moving early is particularly important in the area of clinical information. More information will not only improve practice, but will also allow more convincing demonstrations of excellence, and better insight into costs. Providers that are early and aggressive in collecting and analysing results information will also be in a position to influence the measures used and to set the standards that others will have to live with.³

As a result, TLC promptly undertook a study regarding the use of medications for depressive disorders and risks for disputes and conflict with patients, including damage to the doctor-patient relationship. It was our hope that we would be able to learn more about these issues and share the data with others.

In addition, TLC was interested to see if a dispute resolution program within a health care organisation could become a part of what Porter and Olmsted-Teisberg described as 'the virtuous circle in health care delivery'.⁴ In *Redefining Health Care*, dispute resolution and conflict management were conspicuously absent.

Vision problems following refractive surgery can be problematic, and some of our previous work has suggested that grieving can occur.⁵ A depressed mood can be part of the period of grieving, and we are aware of it and watch for it when caring for patients with vision problems following refractive surgery. Compared to hearing loss, vision loss is much more significant, and in one smaller study suicide following sight loss occurred twice as often as suicide following hearing loss.⁶ Suicide risk has been associated with other surgeries, including cosmetic rhinoplasty in body dysmorphic disorder and breast augmentation surgery.⁷ In a study and meta-analysis of breast augmentation surgery, the risk of suicide was found to be twice that of the general population, but not necessarily between breast augmentation surgery and other cosmetic surgeries.⁸

There is a great deal of existing knowledge about depression, suicide ideation, non-fatal suicide attempts and suicide, but this is also a very complex subject.⁹ In a 13-year follow-up study in Baltimore, Maryland (reported in

2001), the incidence of suicide attempts was estimated at 148.8 per 100,000 person-years and ideation at 419.9 per 100,000 person-years. Those who had reported suicidal ideation at baseline were more likely to report having attempted suicide at follow-up. Psychiatric disorders, especially depression and substance abuse, were associated with onset of non-fatal suicidal behaviour. While persons who reported newly-incident suicidal behaviour were more likely to report use of mental health services, few said that suicidal ideation or attempts were the reason for the visits.¹⁰

Methods

For the purposes of this study we looked at two groups of patients. Group 1 patients represented those who had been referred to TLC Patient Services. Patients are referred into TLC Patient Services by their doctors, either by the operating surgeon, another ophthalmologist or an optometrist. These patient situations are often those where the doctor, and patient relationship is fractured, or otherwise damaged, or in some cases completely broken, and the patient needs help and support. As a result the patient is in great need, the doctors are struggling to help the patient, and the risks for medical malpractice litigation and other disputes and conflicts have been escalating.

TLC Patient Services has three functions within TLC Laser Eye Centers. First, it attempts to help patients, and second it supports the patient's doctors. Finally, it helps resolve disputes and manage conflict. As a result, patients in Group 1 represent those who are having the most difficult time following their surgery and the most challenges in the doctor-patient relationship, where disputes and conflict



may be escalating. We took 100 consecutive patients retrospectively from 1 March 2008 and recorded the age, race, gender, presence or absence of medications for depressive disorders recorded in the medical history of the patient, and the number of medications for depressive disorders recorded.

Simultaneously, 22 TLC Laser Eye Centers performed the same data collection prospectively from 1 March 2008 to 21 March 2008 for those patients determined to be candidates for refractive surgery. These patients comprised Group 2. The total number of patients in Group 2 was 908. Patients who were seen in consultation and determined to not be good candidates for refractive surgery were not included in the study.

The data was recovered and analysed independently on 21 March 2008. Statistical analysis was utilised for Group 1 versus Group 2 patients with regard to age, race, gender, presence or absence of medications for depressive disorders recorded in the medical history of the patient, and the number of medications for depressive disorders recorded.

Results

Our data suggests that older men who were using medications for depressive disorders were more likely to be in Group 1. Indeed, patients using medications for depressive disorders were twice as likely to be in Group 1 as Group 2.

Data for age is represented in Figure 1.

FIGURE 1: AGE

	MEAN
Group 1 (N=100)	40.3 years
Group 2 (N=908)	36.9 years

Independent sample T-test for difference of means (p=.007) (significant at p=.007). There was a statistically significant difference in the mean age of patients in Group 1 (40.3) and Group 2 (36.9). Group 1 patients are older on average.

Data for race is represented in Figure 2.

FIGURE 2: RACE

	GROUP 1	GROUP 2	GROUP 3
White	83 (83%)	764 (16%)	847
Non-White	17 (17%)	144 (84%)	161
TOTAL	100	908	1008

The numbers of Hispanic, Black and Asian patients in Group 1 were inadequate to meet the requirements of the statistical test, so all non-Whites were combined for analysis. There was no statistically significant difference in the proportion of whites in Group 1 (83%) and Group 2 (84%). Fisher's Exact Test (p=.77) (not significant).

Gender data is represented in Figure 3.

FIGURE 3: GENDER

	GROUP 1	GROUP 2	GROUP 3
Female	41 (41%)	487 (54%)	528
Male	59 (59%)	421 (46%)	480
TOTAL	100	908	1008

There is a statistically significant difference in the proportion of females in Group 1 (41%) and in Group 2 (54%). Group 1 has a lower proportion of females. Fisher's Exact Test (p=.02) (significant at p=.02).

Figure 4 demonstrates that a higher proportion of patients in Group 1 were taking medications typically prescribed for depressive disorders. There was a statistically significant difference in the proportion of patients taking depression medications between Group 1 (19%) and Group 2 (8%). Fisher's Exact Test (p=.002) (significant at p=.002).

FIGURE 4: MEDICATIONS

	GROUP 1	GROUP 2	GROUP 3
Yes	19 (19%)	75 (8%)	94
No	81 (81%)	833 (92%)	814
TOTAL	100	908	1008

There was no statistically significant difference in the average number of medications taken by those reporting taking medication for depressive disorders in Group 1 (1.39 medications) and Group 2 (1.24 medications). These data are shown in Figure 5.

Independent sample T-test for difference of means (p=.27) (not significant). It is important to note that this test was of the difference in the number of medications taken by those

that are taking medication for depressive disorders in each group; the large number not taking any medication in each group skews the results, hence, this subset was used for the evaluation of data.

Discussion

We found that older men who were using medications for depressive disorders were more likely to be in Group 1. Indeed, patients using

medications for depressive disorders were twice as likely to be in Group 1 as Group 2.

Ophthalmologists and optometrists are not uniquely qualified as mental health practitioners, and the purpose of this study was not to try to make them be so. If an optometrist and/or ophthalmologist were unfamiliar with a medication, they would, like all other ophthalmologists and optometrists in clinical practice, look up the medication to determine what it was and what it was used for in this particular situation for their patient.

FIGURE 5: NUMBER OF MEDICATIONS

	MEAN
Group 1 (N=18)	1.39 Meds
Group 2 (N=75)	1.24 Meds

However, it is quite possible that not all patients were forthcoming in their medical histories, or in their medication histories, and there were patients who were using medications for depressive disorders for other purposes, too. However, we made the assumption that such confounding existed equally in Group 1 and Group 2 patients.

We are grateful to the patients who have brought these issues forward, but what does this study mean to refractive



surgery today? According to Porter and Olmsted-Teisberg,

There is no need to wait for perfection. Virtually every provider can make major improvements in the value of health care that will become self-reinforcing.¹¹ And, this is what we hope this study

doctors further reduce risk and increase benefits of refractive surgery for patients.

Finally, we felt this effort demonstrated that a dispute resolution and conflict management program could become a part of 'the virtuous circle of health care.' Based upon these results,

... we felt this effort demonstrated that a dispute resolution and conflict management program could become a part of 'the virtuous circle of health care.' Based upon these results, we intend to continue to use our dispute resolution and conflict management program to contribute to the value-based competition in health care in the United States.

will become. As it stands today, TLC Laser Eye Centers takes the medical history and reported use of medications for depressive disorders into consideration more carefully and with more weight than before this study, and we will continue to look into these issues in the future. We have no evidence to suggest that patients who utilise medications for depressive disorders should be excluded from enjoying the benefits from refractive surgery completely.

In addition, our current research is looking into implementing one of two self-administered patient health questionnaires to aid ophthalmologists and optometrists in the preoperative evaluation of their patients seeking refractive surgery. The PHQ-2 consists of only two questions that inquire specifically about the frequency of depressed mood and a loss of interest in doing things, with a positive to either question suggesting the need for additional testing.¹² The PHQ-9 is a somewhat more detailed nine question survey covering some of the important symptoms associated with depression and the frequency a patient might have experienced them.¹³ The PHQ-9 is based on the diagnostic categories listed in The Diagnostic and Statistical Manual of Mental Disorders, DSM-IV, and can be used as a continuance from a positive PHQ-2 score. We may be able to learn more about depressive mood before refractive surgery is considered, and this may help patients and their

we intend to continue to use our dispute resolution and conflict management program to contribute to the value-based competition in health care in the United States. ●

John W Potter, OD is Vice President for Patient Services with TLC Vision Corporation, and graduate student in Dispute Resolution and Conflict Management at Southern Methodist University (Dallas, Texas, USA). Dr. Potter can be reached by telephone at 972 818 1239, via fax at 972 818 1240, or by email at <john.potter@tlcvision.com>.

Acknowledgements

These data were presented at the American Society of Cataract and Refractive Surgery Annual Meeting in Chicago, IL, 4–9 April, 2008. Provinces in Canada and TLC Laser Eye Centers included in this study were New Brunswick and Ontario. States in the United States participating in this study included TLC Laser Eye Centers in Arkansas, California, Colorado, Georgia, Illinois, Indiana, Maryland, Massachusetts, Missouri, New Jersey, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, and Wisconsin.

Endnotes

1. Sabine Vollmer, 'Some link depression, failed LASIK' (3 Feb 2008)



The News & Observer,

<www.newsobserver.com/150/story/920341.html> (accessed 18 May 2008).

2. Food and Drug Administration, 'Ophthalmic Devices Panel of the Medical Devices Advisory', (24 March 2008) *Federal Register*,

<frwebgate6.access.gpo.gov/cgi-bin/waisgate.cgi?WAISdocID=1439566204+0+0+0&WAISSaction=retrieve> (accessed 18 May 2008).

3. Michael Porter and Elizabeth Olmsted-Teisberg, *Redefining Health Care* (2006).

4. Above note 3.

5. John Potter, 'Help refractive surgery patients cope with unexpected results' (2006) 11 *Primary Care Optometry News*, 23–24.

6. Diego Deleo et al, 'Blindness, fear of sight loss, and suicide', (1999) 40 *Psychosomatic Medicine*, 339–334.

7. D Veale, L De Haro, and C Lambrou, 'Cosmetic rhinoplasty in body dysmorphic disorder' (2003) 56 *British Journal of Plastic Surgery*, 546–551. See also David Sarwar, Gregory Brown, and Dwight Evans, 'Cosmetic breast augmentation and suicide' (2007) 164 *American Journal of Psychiatry*, 1006–1013.

8. David Sarwar, Gregory Brown, and Dwight Evans, above note 7.

9. National Institute of Mental Health, 'Depression' (3 April 2008) *National Institute of Mental Health* <www.nimh.nih.gov/health/publications/depression/complete-publication.shtml> (accessed 18 May 2008).

10. Wen-Hung Kuo, JJ Gallo and AY Tien, 'Incidence of suicide ideation and attempts in adults: the 13-year follow-up of a community sample in Baltimore, Maryland' (2001) 31 *Psychological Medicine*, 1181–1191.

11. See above note 3.

12. K Kroenke, RL Spitzer and JB Williams, 'The Patient Health Questionnaire-2: validity of a two-item depression screener' (2003) 41 *Medical Care*, 1284–1292.

13. Dartmouth and Duke Universities, 'Patient Health Questionnaire' *The MacArthur Initiative on Depression and Primary Care* <www.depression-primarycare.org/clinicians/toolkits/materials/forms/phq9/> (accessed 18 May 2008).

ADR DEVELOPMENTS

Bond DRC on the move 2009–2010

The Dispute Resolution Centre (DRC) at Bond University was established in 1989 and has been served by two directors, Laurence Boule and John Wade. During the past 20 years it has been engaged in research, publications, education and training. Its members have conducted workshops on conflict management, negotiation, arbitration and mediation throughout Australia and in 14 overseas countries.

The DRC has announced the following staffing arrangements for the next three years:

- John Wade will serve a third term as DRC Director, commencing July 2009. John is Professor of Law at Bond and currently Chair of the Family Law Council of Australia. He is heavily involved in integrating the family and general mediation accreditation schemes, as well as training ATO, various law firms and judges in Australia, and teaching at SMU in Texas, US.
- Patrick Cavanagh will manage the DRC's activities in relation to commercial negotiation. Pat is an Adjunct Associate Professor of Law at Bond and conducts an extensive private consultancy practice in Australia and abroad.
- Laurence Boule will serve a further spell as Editor of the *ADR Bulletin* published by the DRC. Laurence is a Professor of Law at Bond and former Chair of NADRAC and during 2009–11 will be Director of the Mandela Institute for Global Economic Law in Johannesburg.
- Libby Taylor and Robyn Hooworth have assumed responsibility for family mediation training in terms of the new family mediation accreditation system. Libby is Associate Clinical Professor at Bond and a practitioner at Relationships Australia and Robyn is an Associate Instructor in the DRC and conducts an extensive consultancy practice in Australia, Hong Kong and Europe.
- Assessment for accreditation for the National Mediator Accreditation System is undertaken by a team of experienced practising mediators and scholars from the Gold Coast, Brisbane and Melbourne: Robyn Hooworth, Libby Taylor, Mieke Brandon, Tom Stodulka, Callum Campbell, Jenny Felton, Mark Hebblewhite and Peter Condliffe.

Also in the assessment team is Linda Kochanski, formerly of Griffith University who has recently taken up an Assistant Professorship in the Bond Law School and acts as coach at training courses.

- Nadja Alexander, formerly Director of ADR at the Australian Centre for Peace and Conflict Studies in the University of Queensland and current member of the NADRAC Council, has joined the DRC as special consultant on comparative and international mediation. Professor Alexander will teach International and Comparative Mediation in the Bond postgraduate program in 2009.
- Miryana Nestic, ADR consultant throughout Europe and co-author of the leading UK text on mediation, will be conducting advanced mediation courses for the DRC. She will also teach Mediation, ADR and Managing Organisational Conflict in the Bond law postgraduate and undergraduate programs in 2009 and 2010.
- Ross McSwan has joined the DRC as Associate Instructor in the schools program. Ross is a barrister and mediator with extensive experience in practice, teaching and training.
- Anne Purcell has joined the DRC as an Associate Instructor and will be conducting workshops on



ADR DEVELOPMENTS

Psychological Aspects of Dispute Resolution and Decision-Making.

Anne is a clinical psychologist from Brisbane.

- David Bryson and Shirli Kirschner will be teaching a course in Confronting Conversations — Dealing with Conflict for the DRC. David is a long-serving member of the ACCS in Melbourne and a private dispute resolution consultant and has conducted several courses for the DRC. Shirli is a New South Wales mediator

and facilitator and the principal of Resolve Advisers in Sydney.

- Cheryl Hensel and Jane Hobler are the joint administrators of the DRC and Kerri Smith is business editor of the ADR Bulletin.

For further information on the Bond Dispute Resolution Centre and its services visit the website at www.bond.edu.au/faculties-colleges/dispute-resolution/index.htm, email drc@bond.edu.au or phone (07) 5595 2039. ●