



Diabetes Close Up, V2, #15  
July 24, 2003

Greetings ~

1. **THER 2Q03 results** – Strong sales of ~\$51 mm beat lower estimates
  2. **Pharma results - Lilly, Bristol-Myers Squibb, and GlaxoSmithKline**
  3. **Upcoming earnings reports** with implications for diabetes/obesity markets
  4. **Upcoming diabetes/obesity – related conferences**
  5. **Literature review** – recent articles of note
- Appendix: More on Type 2 drugs

+++++

1. **THER 2Q03 results:**
  - a. **Strong financial performance:**
    - i. **Blood glucose monitoring sales totaled \$50.9 million**, above expectations.  
Excluding \$20.4 million in previously deferred revenue that hit the top line in 2Q02, sales rose 31%. For this quarter, all public reports are in, and TheraSense is the first player in the blood glucose industry to exceed expectations and the first to show double-digit growth.
    - ii. **International revenue** for 2Q was 19% of total revenue, slightly under expectations. International revenue appears tougher to forecast, unsurprisingly.
    - iii. **Gross margin hit 56% vs. 42% last year**, reflecting increased business leverage.
    - iv. **Loss per share of \$0.08 came in ahead of consensus of a \$0.14 loss per share.**
  - b. **Positive meter/strip data:** TheraSense had encouraging recent data from IMS and Neilson:
    - i. **10% meter share** (up 71% year over year) based on IMS NPA prescription data
    - ii. **6.5% strip share** (up 50% year over year) based on IMS NPA prescription data
    - iii. **10% and 6% meter and strip share** based on NSP data (wholesales/distributors)
    - iv. **Neilson indicated 7.8% total category share.** Recall this is up from 0% in 2000.
  - c. **Favorable balance sheet trends:**
    - i. **Operating cash flow positive** this quarter (not expected next quarter);
    - ii. **Lower inventories** this quarter by ~25%;
    - iii. **Days sales outstanding** (unweighted) **reduced** to 66 from 88 last quarter; days sales outstanding should stay below 60 on a go-forward basis, similar to this quarter.
    - iv. **Paid down several million in debt;**
    - v. **Cash balance is ~\$79 million**, above expectations.
  - d. **Guidance:**
    - i. **\$210 - \$220 million for 2003** was reiterated;
    - ii. **Revenue of \$56-\$59 million** for 3Q was forecast;
    - iii. **2003 international revenue** forecast at 20-25% of total sales;
    - iv. **SG&A** should continue at around the same \$26 mm level (all sales spots have been filled);
    - v. **R&D forecast at 9-11%** of revenue;
    - vi. **Profitability forecast for 3Q and cash flow positive in 4Q.**
  - e. **New growth vehicles:** Management expects managed care contracts and new products to represent growth vehicles in 2H03.

- i. **Managed Care:** Management said it is on track with plans to have 20 million covered lives by the end of 2003 on an “equal – pay” basis. Management expressed optimism on this front in general as it makes progress on achieving equal payment status for patients. On this subject, it cited an interesting to-be-published RAND study as evidence of increased consumer economic sensitivity - it suggested that when co-pays double, usage declines by 10-12%. More details to come.
- ii. **New products:**
  - 1. **Good reception at ADA for Flash, THER’s new glucose monitor:**
    - a. This could be out in 4Q, when the Company could benefit from demand for system, stocking, etc.
    - b. The meter is small and fast and should appeal to the ‘on the go’ demographic in particular.
    - c. Management wisely noted that it’s impossible to keep all users happy; they do seem to be aiming at a profitable segment.
    - d. When the Flash is launched, users will welcome fact that they do not need to buy separate strips - this also seems smart from shelf and inventory management perspectives.
  - 2. **The integrated CozMonitor (Deltec pump/FreeStyle technology) is expected to be approved in 2004** (pending 510K delivery). Medtronic started shipping its integrated BD Paradigm pump/meter earlier this week and we will be monitoring reactions to this.
  - 3. **Regulatory plans call for the Navigator, TheraSense’s continuous monitor to be submitted to the FDA in the second half.** Likely approval time suggested at about 15 months. Importantly, the Navigator will likely be the first device submitted that looks to replace standard devices. My sense from discussions with those close to the FDA is that the FDA is very eager for a product that will alert patients to hypoglycemia or hyperglycemia but obviously will take extreme care (especially in this Rezulin era) with the first “non-adjective” product. Patients are looking forward to devices that offer trend info and alarms; note that education will be important as approvals come closer - patients will have to learn how to avoid over-correction, in particular.
- f. **Competitive landscape:** Based on the full reports, on preliminary basis, I would expect estimates for the blood glucose market for 2003 to be closer to \$4.0 billion than the “\$4.0 - \$4.5 billion” that is usually quoted, or even \$4.5 billion. Data isn’t complete, but this estimate is based on:
  - a. J&J total blood glucose monitor sales fell 6% in 2Q
  - b. Abbott’s sales rose 3% in 2Q
  - c. Roche’s first half results showed a 4% increase worldwide (~1% excluding Disetronic).
  - d. BD reported \$3.6 mm in sales this quarter, it’s second quarter in this market.
  - e. We understand Bayer saw some weakness in the US (results not disclosed).

2. **Pharma diabetes results of note:**

- a. **Lilly reported today - Diabetes Care products rose 4% in 2Q to \$640 million** over same quarter last year, following a 22% increase last quarter (tougher comp in 2Q).
  - i. **Insulin:** Insulin sales franchise are at a bit of a defining moment, as Humalog sales have now reached the same quarterly level (\$254 mm) as Humulin<sup>1</sup> (\$255 mm) and should surpass it shortly. In 2Q, Humalog sales rose 24%, reflecting insulin analog

---

<sup>1</sup> Anecdote Alert – I really can barely believe Humulin is still around. Humulin is the insulin that I first took when diagnosed in the mid-1980s – in the Lantus era, doctors described it as an unstable insulin. Economics and availability prevent many patients from taking higher-cost long acting insulin analogs such as Aventis basal insulin Lantus; no one in my broad diabetes patient database remains on Humulin. (Note the anecdote alerts are stories that I hope will add flavor to your understanding of diabetes, but are communicated as stories about my personal experience rather than a reflection of the experiences of the average patient with diabetes – that may or not be the case depending on anecdote.)

sales that continue on a roll, while Humulin sales declined 1% - non-Lantus long-acting insulin shows more weakness.

- ii. **Actos**<sup>2</sup> scripts rose 11% but revenue fell 17%. Lilly cited odd Takeda revenue sharing contractual terms that cause lots of quarterly variation and make it tough to make true comparisons. My guess is last year showed a tougher Actos comp.
- iii. **Pipeline** – FDA submission expected in 2004 for Exenatide (Type 2 diabetes) and Protein Kinase C beta Inhibitor (Diabetic Peripheral Neuropathy). Management was asked whether it would be presenting Exenatide Phase III data at EASD and it responded that data would be presented in due course, and that progress was very much on track, although time/place of data presentation couldn't be confirmed.

b. **Bristol-Myers Squibb reported robust diabetes-related sales today:**

- i. The **Glucophage**<sup>3</sup> franchise rose 92% year over year to \$240M.
  - 1. **Glucophage XR** rose 29% to \$102 million;
  - 2. **Glucovance** rose 127% to \$116 million;
  - 3. **Glucophage** sold just \$26 million.
- ii. **Pipeline:** BMS management noted on the call that its dual PPAR agonist for diabetes just moved into Phase III.

c. **Glaxo Smith Kline reported more modest diabetes-related results yesterday:**

- i. Sales of Avandia and Avandamet<sup>4</sup>, GSK's oral anti-diabetes products, grew 3% in the quarter to £212 million. **The press release noted that, similar to Lilly's experience with Actos, underlying drug trends are better than 2Q03 sales imply.** They say that in the USA, underlying growth of Avandia and Avandamet was approximately 20%, although reported sales decreased 5% due to wholesaler stocking movements in the previous quarter.
- ii. **Pipeline:** GSK plans to launch Avandamet in Europe later in the year following recent CMMP approval.

3. **Upcoming earnings reports with implications for diabetes/obesity markets:**

- a. **PFE** – Friday, July 25, 11:00 EST <http://www.pfizer.com/main1.html>
- a. **AVE** – Tuesday, July 29. Earnings press release on the website ([www.aventis.com](http://www.aventis.com)) as early as 1 am EST (7am Central European Time)
- b. **IMDC** – July 30, 4:30 pm EST [www.inamed.com](http://www.inamed.com)
- c. **NVO** - Aug 5, 9:00 am EST (15:00 Danish time) - will be webcast on homepage. <http://www.novonordisk.com/investors/default.asp>
- d. **NKTR** – Wednesday, August 6, 5 pm EST [www.nektar.com](http://www.nektar.com)
- e. **AMLN** – Thursday, August 14, 12 am EST [www.amylin.com](http://www.amylin.com)
- f. **MDT** – Week of August 11 (estimated); annual meeting occurs August 28 [www.medtronic.com](http://www.medtronic.com)
- g. **Already reported: JNJ, ABT, Roche, BD, GSK, THER, BMY, LLY.**

4. **Upcoming diabetes/obesity – related conferences:**

- a. **AADE:** August 5-9, Salt Lake, [www.aadenet.org](http://www.aadenet.org).
- b. **EASD/IDF:** August 24-29, Paris, [www.easd.org](http://www.easd.org).
- c. **NAASO Annual Scientific Meeting:** October 11 – 15, Ft Lauderdale, [www.naaso.org/meetings/](http://www.naaso.org/meetings/)
- d. **Canadian Diabetes Association:** October 15-18, Ottawa, Canada. [www.diabetes.ca](http://www.diabetes.ca) **Early bird discount ends August 18.**
- e. **Diabetes Technology:** November 6-8, San Francisco. [www.diabetestechology.org](http://www.diabetestechology.org)
- f. **American Heart Association:** Diabetes symposium led by the great Dr. Steve Marso: November 8, 11:30 a.m.-4:00 p.m, Orlando – [www.scientificsessions.org](http://www.scientificsessions.org).

<sup>2</sup> See appendix for more information on Actos.

<sup>3</sup> See appendix for more information on the Glucophage franchise.

<sup>4</sup> See appendix for more information on Avandia and Avandamet.

## 5. Literature Review – Recent articles of note:

- **Clinical Significance, Pathogenesis, and Management of Postprandial Hyperglycemia** *From Archives of Internal Medicine Vol 163, June 9, 2003(1306-1316)* Looking for a review of studies explaining the benefits of intensive glucose treatment? A concise review of the most recent studies involving strict glycemic control and its effect on both microvascular and macrovascular complications can be found in the June 9, 2003 edition of the *Archives of Internal Medicine*. This is a good one. As you know, research has clearly shown that elevated glucose levels increase the risk of microvascular complications and that tight glucose control can help alleviate these complications. More recent epidemiologic and experimental studies (e.g., UKPDS) are beginning to demonstrate the importance of intensive treatment on macrovascular health (i.e. cardiovascular disease) in patients with diabetics. Also detailed in this article are therapeutic approaches, both currently available and in development, for effective diabetes management.
- **A Population Perspective on Diabetes Prevention** *From Diabetes Care, Vol 26, No 7, July 2003 (1999-2004)*. The *Diabetes Care* July 2003 issue released a new study<sup>5</sup> examining the relationship between obesity and the prevention of weight gain on the incidence of type 2 diabetes. **Results and Conclusions:**
  - i. A total of 226 of 1,996 (11.3%) Mexican Americans and 69 of 1,232 (5.6%) non-Hispanic whites had developed type 2 diabetes by the end of 7.5 years of follow-up study.
  - ii. Subjects who developed diabetes had a higher BMI and body weight at baseline, as well as higher values for fasting glucose, systolic and diastolic blood pressure, and triglycerides.
  - iii. The study also showed significant reductions in incidence of type 2 diabetes according to BMI group.
  - iv. Notably, results showed that most cases of type 2 diabetes are of overweight or obese individuals, and are not necessarily at the far right of the weight spectrum.
  - v. In summary, this study shows a causal relationship between carrying excess weight and the incidence of type 2 diabetes, and suggests that targeting normal and overweight people before they become overweight or obese could be the most effective way to reduce the incidence of type 2 diabetes caused by excess weight.
  - vi. All this, of course, begs the question, how the overweight and obese should be targeted – this is quickly becoming, at least in the US, an age-old question.

Please let me know if you have any questions ~ and in the meantime, have a beautiful day!

\*

\*

\*

---

<sup>5</sup> Background: Subjects were taken from the San Antonio Heart Study – a prospective population-based study of 3,301 Mexican Americans and 1,857 non-Hispanic whites ages 25-64 originally conducted in two phases between 1979 and 1988. This study involved a 7-8 year follow-up beginning in 1987 to further study the incidence of type 2 diabetes and cardiovascular disease among the remaining 3,682 participants (73.7% of survivors). Subjects were considered to have type 2 diabetes if they met the 1997 ADA plasma glucose levels (fasting glucose of > 126 mg/dl or 2 hour postload value of >200 mg/dl. In addition, subjects with a history of diabetes and being treated with insulin or oral antidiabetic medications were also considered to have diabetes. Weight classifications were divided into several subgroups based on BMI: <25 – normal, >25 and <30 – overweight, >30 and <35 – obese, and >35 - very obese.

**APPENDIX**  
*More on Type 2 drugs*

So this is for the non-doctor and non-doctor, non-scientific types. If you already know how to spell sulfonylurea, please stop reading here! : >

\*

\*

\*

Type 2 drugs can be very hard to understand. People say to me all the time “There are so many – and they are so hard to understand – I can’t even say them!” I sympathize. Here’s a quick review of today’s drugs, for those like-minded – for non-pharma types, we’ll learn these along the way!

1. **Bristol-Myers Squibbs’ Glucophage XR and Glucophage** represent the biguanide class of anti-hyperglycemic drugs; they have been shown to improve glucose tolerance and to lower both basal and postprandial glucose levels. This class decreases hepatic glucose production, decreases intestinal absorption of glucose, and improves insulin sensitivity by increasing peripheral glucose uptake and utilization. Glucovance combines Glucophage, a biguanide, with glyburide, a sulfonylurea.
2. **GlaxoSmithKline’s Avandia is one product in a class of prescription drugs called thiazolidinediones** (also known as TZDs). It is used to treat Type 2 diabetes by helping the body use the insulin that it is already making. Avandia can be taken once or twice a day. **Avandamet** is another combo drug – it is a mix of metformin, which lowers the amount of sugar produced by the liver; and rosiglitazone (a thiazolidinediones), which directly targets insulin resistance, a major underlying cause of type 2 diabetes.
3. **Lilly’s Actos** is a 1x/daily oral Type 2 diabetes drug in the thiazolidinediones class. Thiazolidinediones have been shown to increase insulin sensitivity in muscle and adipose tissue and can also lower hepatic glucose production.

*Diabetes Close Up* is an occasional newsletter that highlights notable goings-on related to selected companies with diabetes/obesity businesses. This newsletter is put forward as an unbiased commentary on the industry. If you have any suggestions that you think should be included, please contact [info@closeconcerns.com](mailto:info@closeconcerns.com). Many thanks!

**Disclosure:** Kelly L. Close is a specialized consultant to the medical technology/pharmaceutical industries. Companies 1) in which Kelly Close has a personal investment; 2) that are clients of Close Concerns, Inc.; and/or 3) on which Kelly Close serves on a speaker’s bureau include Abbott, Animas, Amylin, Aventis, Johnson & Johnson, SimpleChoice, and TheraSense. All observations expressed are the opinions of Close Concerns alone and should not be viewed as recommendations to investors on any companies in the industry. If you prefer not to be included on *Diabetes Close Up* mailings, or if you know others who would like to be on the mailing list for future occasional observations, please contact [info@closeconcerns.com](mailto:info@closeconcerns.com).