

Inogen (INGN): Needs to Take a Breath

Citron puts generous target of \$95

In the past, Citron has been negative on names as a result of momentum, valuation, or competition. It is rare that we get an opportunity of the type we currently see in Inogen. While Wall Street was busy looking at the growth of this high-flying med-tech company, no one looked under the hood to find a future that is guaranteed to have price compression and competition.

Whether you are a Laurel or a Yanny, you cannot fail to hear that Inogen should quickly fall 50%.

Inogen Background

Inogen is a self-described medical technology company that develops, manufactures and markets portable oxygen concentrators used to deliver supplemental long-term oxygen therapy to patients suffering from chronic respiratory conditions. It went public in 2014 under the Jobs Act taking advantage of the boom in the portable oxygen concentrator market.

You might know Inogen best by its many commercials that are the core of its direct to consumer strategy that advertise how to go from oxygen tanks to concentrators. <https://www.ispot.tv/ad/AESz/inogen-one-g4-mary-and-shirley>

While this might sound like a nice but competitive business, the stock market has sucked on nitrous oxide and made this the most expensive company in either med-tech or medical supplies and definitely removed Inogen from any relation to the valuation of its peers.

In order to show how ridiculous the share price has become relative to its current business and outlook, let us do a comparison of Inogen vs its peer group in the respiratory device market:

Comparative Company Analysis										
	Mkt Cap	EV	Revenue			EBITDA			R&D % of Rev	EBITDA Mg
			2017A	FWD + 1	FWD + 2	2017A	FWD + 1	FWD + 2	2017A	2017A
Medtronics	\$115,925	\$130,415	4.4x	4.4x	4.2x	14x	14x	13x	7%	31%
Philips	\$39,648	\$42,365	2.1x	2.0x	1.9x	13x	12x	11x	10%	16%
Resmed	\$14,579	\$14,685	7.1x	6.3x	5.7x	26x	21x	19x	7%	28%
Teleflex	\$12,045	\$13,898	6.5x	5.6x	5.2x	23x	20x	17x	4%	28%
Hill-Rom	\$5,943	\$7,951	2.9x	2.8x	2.7x	14x	14x	12x	5%	20%
Chart Industries	\$1,997	\$2,370	2.4x	2.0x	1.8x	18x	14x	13x	7%	13%
Tactile Systems Tech	\$852	\$811	7.4x	6.0x	5.0x	142x	59x	44x	5%	5%
Average			4.7x	4.2x	3.8x	36x	22x	18x	6%	20%
Inogen	\$3,676	\$3,488	14.0x	10.9x	9.2x	86x	64x	52x	2%	16%

Note: we have assumed that the Chart Industries R&D is only for the biomedical unit

Inogen is afforded a “disruptive” multiple despite selling a commoditized product with low barriers to entry on both FDA and manufacturing. Don't take it from Citron; the following quotes are from its recent 10k.

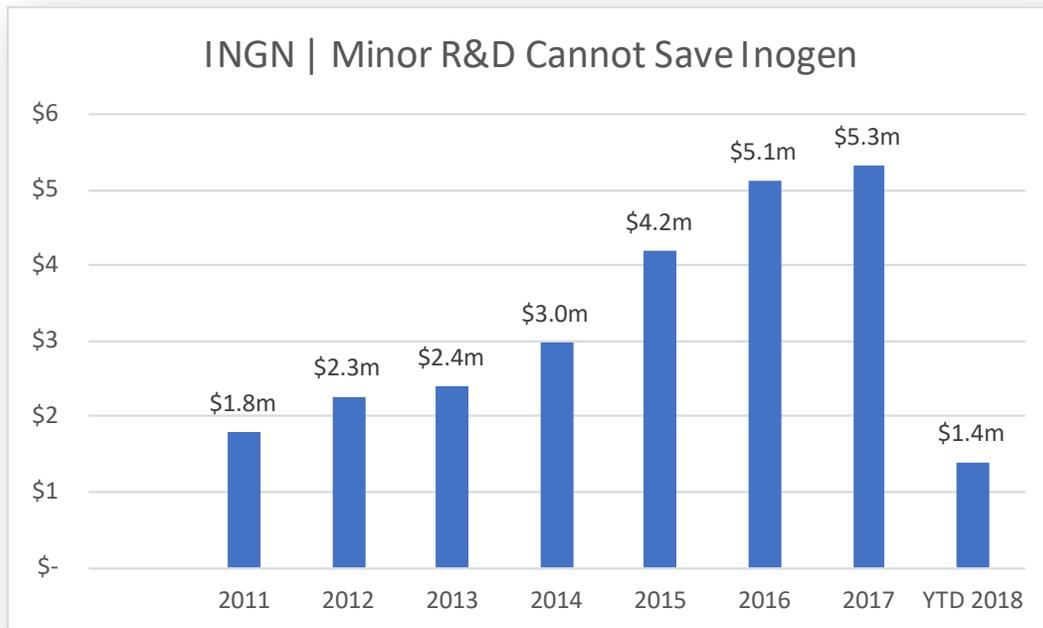
“Given the relatively low barriers to entry in the oxygen therapy device manufacturing market, we expect that the industry will become increasingly competitive in the future”. (2017 10k)

“Given the relatively straightforward regulatory path in the oxygen therapy device manufacturing market, we expect that the industry will become increasingly competitive in the future”

And for those nitpickers who want to say that ABMD is more expensive, let it be noted that Abiomed makes proprietary artificial heart implants and spends close to 13% of its revenue on R&D.....which takes us to the most critical point of this piece.

Where is the science? - Complete lack of Research and Development.

For those who remember the Valeant saga, the permanent criticism was the lack of spending on R&D. The bears correctly suggested you couldn't run a viable pharmaceutical company without R&D. As crazy as this may look, the following chart documents the total R&D spend of Inogen (and no these numbers are not in 000s):



Notice last year Inogen stepped it up by a whopping \$200k.

This is what the chart looks like as a % of revenue compared to its much larger competitors.

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The only thing worse than having the lowest R&D spend in med-tech is lying to your investors in your annual presentation with the following:

Differentiated product portfolio with commitment to R&D

Putting R&D expenditures in perspective

It should be noted that Resmed spends more in R&D in 12 days than Inogen spends in a year...while competing in the same respiratory products industry.

Invacare while being merely a \$500 mil cap company which also sell oxygen concentrators spends more than 3x for total R&D compared to INGN.

Without sufficient R&D Inogen tells investors what its future looks like in this line from the 10k.

"If we are unable to continue to enhance our existing products and develop and market new products that respond to customer needs and preferences and achieve market acceptance, we may experience a decrease in demand for our products and our business could suffer" (Inogen 2017 10k)

Insider Sales

While sensational and probably an overused data point by short sellers, the insider sales at INGN cannot be ignored for no other reason but this line.

Since IPO, insiders have sold 7.0m shares for a total value of \$236 million at an average price of \$33 / share.



Citron was going to do comparisons of insider sales to R&D etc, but there is no reason to rub salt in an open wound. What has changed with respect to Inogen or its prospects since management began unloading shares? Nothing. You have to imagine that even management had no reason to believe that Wall St would bid this stock up the way it has.

The Real Inogen- How the stock achieved these levels.

Noticing that it is competing with better funded companies with a non-differentiated product, Inogen decided to take a direct to consumer model. This is how the CEO described his business going forward from last month's conference call.

"So an existing rep in any given month they may work X number of leads that are already in their bucket and then Y number of new leads, brand new reps to come on board, it's all new leads, you have to load them up and the spend tends to be a little higher to feed them until they get the steady state."

"So as we hire more reps, you've got to have more leads or else you choke the reps off and starve them"

The only thing that was missing was for him to tell us that coffee is for closers.

#Glengarrylenross [#GlenGarryGlenRoss](#)

Citron called into Inogen to ask a few questions about the product. After speaking to a pushy sales rep who claimed if we bought today and only today she could take \$1k off the \$3500 list price as a promotion, we kindly said no. Foolishly we left our real phone # and have been called 3 times in the past 24 hours.

Does any of this sound like the most expensive company in Med-tech/Med Supplies??

Billing Questions

Another claim by management as an advantage over competition relates to alleged advantages in licensing and billing:

“To pursue a direct-to-consumer strategy, our manufacturing competitors would need to meet national accreditation and state-by-state licensing requirements and secure Medicare billing privileges.”

However, this accreditation is nothing special. While still private for under \$1 million, Inogen got this accreditation by buying a firm called Comfort Life Medical Supply that according to them had “few assets besides a Medicare billing number.” Doesn't sound like much of a barrier for competitors.

We have not yet looked into Inogen's Medicare or insurance billing practices but historically in the medical device market, when the manufacturer also owns a distributor or a billing company, it does not take Robert Mueller to find misdoings.

All About the Pricing

Unlike most med-tech companies who enjoy patent and pricing protection, Inogen is operating in a space with neither.

While the market for oxygen concentrators is growing, the amount providers are able to charge Medicare or insurance companies will most certainly follow the path of the traditional oxygen market. Below is a table on the price that Medicare has put on oxygen.

	List Price (per month)	Allowable in 2015	Allowable in 2016*	Allowable in 2017*
INGN Stationary Oxygen Rental	\$260.00	\$180.92	\$140.38	\$71.85
% discount vs. list price		-30%	-46%	-72%
INGN Oxygen Generating Portable Equipment	\$70.00	\$51.63	\$48.11	\$39.03
% discount vs. list price		-26%	-31%	-44%

*Note: Using average allowable

Citron can say without qualification that no amount of television commercials can counter the effects of falling Medicare and private pay reimbursement rates for a product that is certain to fall in price. The Medicare competitive bidding program has become stringent in all oxygen reimbursements.

Citron has no doubt that as the proliferation of portable oxygen concentrators emerges, pricing will contract as it does with EVERY commoditized non-proprietary device.

What is a fair stock price for Inogen?

We will:

- Disregard where the insiders have sold.
- Disregard the complete lack of R&D
- Disregard the lack of pipeline
- Disregard the eventual price contraction of oxygen concentrators
- Disregard it is a single product company

Instead, we give Inogen the benefit of the doubt and afford it the highest multiple of its peer set -- which would be Resmed. And it should be noted that **Inogen is NO Resmed**, which owns over 5,000 patents, and dominates the CPAP and respiratory research market.

Based on Resmed's multiple, Inogen would trade at **\$92 a share**

If we gave it the average of the group Inogen would trade at **\$64 a share**

Valuation		
	Resmed Valuation	Peer Group Average Valuation
EV / 2017A Revenue	7.1x	4.7x
2017A Inogen Revenue	\$249	\$249
Implied Enterprise Value	\$1,772	\$1,168
Net Cash	\$188	\$188
Implied Market Cap.	\$1,960	\$1,357
Shares o/s	21.2	21.2
Implied Share Price	\$92.47	\$64.00
Current Share Price	\$173.45	\$173.45
Downside to Stock	(47%)	(63%)

(1) Comps include Medtronic, Philips, Resmed, Teleflex, Hill-Rom, Chart Industries, and Tactile Systems

Citron urges investors to consider these other points when determining the real value of Inogen:

- No razor /razor blade recurring revenue
The home and portable units sold by Inogen do not require oxygen refills.
<https://www.inogen.com/resources/oxygen-concentrators/home-oxygen-concentrators/>
- A May 2018 New England Journal of Medicine article discusses the overuse of supplemental oxygen. The meta-sourced study published is the most thorough study ever on LTOT
<https://www.medscape.com/viewarticle/895760>
- TAM has not been properly addressed. While the bull case rests on small penetration of a large TAM, it ignores that Inogen specializes in portable pulse machines which is only half the oxygen concentrator market... continuous being the other.

Conclusion

Citron does not doubt the future of oxygen compressors. While they might be overprescribed, the amount of people who get diagnosed with COPD will most likely increase over the next 10 years. During that time innovative companies will create innovative products that will serve this market. Inogen will not be one of them. While Inogen no doubt has found its footing in the current market with TV commercials and aggressive sales reps, the air is thin at Inogen's current valuation and Inogen is most certainly going to be either priced out or innovated out of the market in the future.

Cautious Investing to All