



**CRAIG-HALLUM**  
CAPITAL GROUP LLC

**ALPHA SELECT LIST**

October 31, 2018  
Institutional Research

**CAS Medical Systems, Inc.**

(CASM - \$1.88)

**BUY**

Price Target: \$4

**Broad Based Strength Drives Solid Q3 Results, Upcoming Partner Reveal Represents A Major Catalyst. Maintaining BUY Rating And \$4 Price Target.**

*CAS Medical Systems is a manufacturer and marketer of medical technology used to measure cerebral blood oxygen levels and patient monitoring.*

**OUR CALL**

This morning, CASMED reported better than expected Q3 results, with revenue coming in ahead of consensus for the fifth quarter in a row. Monitor placements rose nicely Q/Q and we were encouraged to hear that the company regained another of the customers that had been lost last year due to price competition (see bullet point below). As expected, there was also another clinical specialist added during the quarter and we believe the recent investment in these resources is having a positive impact on customer wins. That said, our revenue estimates for the year remain largely unchanged, as the higher mix of international revenue during the quarter leads us to believe some orders from distributors may have been pulled forward from Q4.

Separately, we note that the submission of a joint 510(k) with an as yet unannounced OEM partner was pushed back slightly from Q4 '18 to January of 2019, though we view this as a minor change ahead of what we believe to be the single biggest catalyst for the stock. As a reminder, management has indicated the partner they are working with is a "major player" with "many thousands of monitors" and similar call points, which we expect will drive much faster adoption as there will be a larger sales force selling the product and customers will not have to purchase a separate monitor to utilize CASM's sensors. Given CASM's clinically superior product, accelerating growth, and low valuation (2.9x FY19E EV/Sales), we are maintaining our Buy rating and \$4 price target.

*CASMED management will be meeting with investors at the Craig-Hallum Alpha Select Conference on November 15, 2018 in New York City.*

	Q3-18A		Q4-18E		FY18E		FY19E	
	Revenue	EPS	Revenue	EPS	Revenue	EPS	Revenue	EPS
<b>Actuals:</b>	<b>\$5.4</b>	<b>(\$0.06)</b>	--	--	--	--	--	--
C-H Prior Estimate:	\$5.1	(\$0.07)	\$5.7	(\$0.06)	\$21.5	(\$0.28)	\$24.7	(\$0.20)
Consensus Estimate:	\$5.1	(\$0.07)	\$5.6	(\$0.07)	\$21.4	(\$0.28)	\$24.3	(\$0.18)
Prior Guidance:	--	--	--	--	--	--	--	--
Guidance:	--	--	--	--	--	--	--	--
<b>C-H Revised Estimate:</b>	<b>--</b>	<b>--</b>	<b>\$5.4</b>	<b>(\$0.07)</b>	<b>\$21.5</b>	<b>(\$0.28)</b>	<b>\$24.7</b>	<b>(\$0.22)</b>

Source: CAS Medical Systems, FactSet, and Craig-Hallum estimates

**KEY POINTS**

**Sensor Sales Drive Revenue Beat, Cost Control Offsets Tariffs – Q3** revenue from continuing operations grew by 19% Y/Y and was above our estimate, while EPS came in a penny above (see table above). Growth was driven by a 22% Y/Y increase in sensor sales to \$4.8 million, the highest growth rate since Q2 '16. Additionally, there were 78 monitors placed during the quarter (up from 66 last quarter), 28 of which were placed in the U.S. In terms of profitability, there was a 190 bps impact on gross margin from tariffs, but this was offset by better than expected cost control on the OpEx lines, resulting in the EPS beat.

**A Major Hospital System Returns to CASMED –** In September, CASM won back a large hospital system in the Midwest that had been lost last year due to price competition. The return of this customer was driven by significant pushback from clinicians, who were unhappy with the competing product the purchasing manager had selected. Once approved to switch back, 8 monitors were shipped overnight to this customer and we expect them to remain a loyal customer in the years to come.

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Changes	Previous	Current
Rating:	--	Buy
Fundamental Trend:	--	Improving
Price Target:	--	\$4.00
FY18E Rev M:	--	\$21.5
FY19E Rev M:	--	\$24.7
FY18E EPS:	--	(\$0.28)
FY19E EPS:	(\$0.20)	(\$0.22)

Profile		
Price:		\$1.88
52 Wk Range:	\$0.59	- \$2.70
Avg Daily Vol:		140,168
Shares Out M:		27.8
Market Cap M:		\$52.3
Insiders Own:		12%
Short Interest:		1%
Book Value/Sh:		(\$0.03)
Est LT EPS Gr:		15%
Net Cash/Sh:		(\$0.19)
Debt / Capital:		12%
Year End:		Dec.

Rev (M)	2017A	2018E	2019E
Mar	\$4.5	\$5.4A	\$5.7
Jun	\$4.6	\$5.3A	\$6.0
Sep	\$4.5	\$5.4A	\$6.3
Dec	\$5.1	\$5.4	\$6.7
FY	\$18.8	\$21.5	\$24.7

EPS*	2017A	2018E	2019E
Mar	(\$0.09)	(\$0.07)A	(\$0.06)
Jun	(\$0.09)	(\$0.08)A	(\$0.06)
Sep	\$0.10	(\$0.06)A	(\$0.05)
Dec	(\$0.07)	(\$0.07)	(\$0.05)
FY	(\$0.27)	(\$0.28)	(\$0.22)

\*Cont. ops.

FY P/E	NA	NA	NA
FY EV/S**	3.8x	3.3x	2.9x
**includes \$13M preferred			

Management	
CEO	Tom Patton
CFO	Jeff Baird



**Manufacturing Changes Currently Being Evaluated** – Due to the impact that tariffs are having on gross margin, management is evaluating whether to move manufacturing out of China. If this occurs, there may be upside to our gross margin estimates following a 6-9 month transition period. The company has also sent an appeal to the U.S. trade representative requesting an exemption from the tariffs, though we are uncertain when a response to this appeal will be received. In the meantime, we believe it may be possible for sensors sold internationally to be shipped directly from the manufacturer in China to a warehouse in the region of sale, thereby bypassing the U.S. and avoiding the tariffs.

## QUARTERLY RESULTS AND ESTIMATE CHANGES

### CASM Quarterly Results and Guidance Snapshot

\$ thousands	Actual	Estimates	Variance	Notes	Last Q	Q/Q Growth	Last Y	Y/Y Growth
Cerebral Oximetry	\$5,300	\$4,941	\$359.0	Sensor revenue accounts for the vast majority of the beat	\$5,152	3%	\$4,375	21%
Service and Other	\$82	\$120	(\$38.0)		\$139	(41%)	\$151	(46%)
<b>Total Revenue</b>	<b>\$5,382</b>	<b>\$5,061</b>	\$320.9	Another quarter of impressive Y/Y growth	<b>\$5,291</b>	<b>2%</b>	<b>\$4,526</b>	<b>19%</b>
GAAP Gross Profit	\$3,140	\$3,021	\$118.7	Revenue outperformance offset gross margin miss	\$3,181	(1%)	\$2,644	19%
GAAP Operating Income	(\$976)	(\$1,312)	\$335.9	Both R&D and SG&A came in lower than we expected	(\$1,126)	N/A	(\$1,293)	N/A
Net Income Avail. to Common from Cont. Ops.*	(\$1,713)	(\$2,029)	\$315.9	Operating income beat flowed through to net income	(\$2,137)	N/A	(\$339)	N/A
<b>GAAP EPS from Cont. Ops.</b>	<b>(\$0.06)</b>	<b>(\$0.07)</b>	\$0.01		<b>(\$0.08)</b>	N/A	<b>(\$0.01)</b>	<b>N/A</b>
GAAP Gross Margin	58.3%	59.7%	(136) bps	Tariffs mentioned last quarter had a bigger impact than we expected	60.1%	(177) bps	58.4%	(7) bps
Research and development (% of sales)	13.2%	16.7%	(346) bps	New sensor design has been rolled out	15.8%	(252) bps	17.8%	(452) bps
Selling, general and administrative (% of sales)	63.2%	68.9%	(568) bps	Impressive, given another clinical specialist was added	65.6%	(240) bps	69.2%	(599) bps
GAAP Operating Margin	(18.1%)	(25.9%)	779 bps	Entirely OpEx driven	(21.3%)	315 bps	(28.6%)	1,044 bps

Guidance	Current	Prior
Total FORE-SIGHT revenue growth	Mid-teens	Mid-teens

\*Numbers reflect results and estimates from continuing operations  
Source: CAS Medical Systems and Craig-Hallum estimates

### Estimate Changes

\$ thousands	Q4-18 New	Q4-18 Prev.	FY18 New	FY18 Prev.	FY19 New	FY19 Prev.
Cerebral Oximetry	\$5,302	\$5,615	\$21,066	\$21,020	\$24,175	\$24,211
Y/Y Growth	6.2%	12.4%	16.4%	16.1%	14.8%	15.2%
Service and Other	\$120	\$120	\$474	\$512	\$480	\$480
Y/Y Growth	(6.3%)	(6.3%)	(28.6%)	(22.9%)	1.3%	(6.2%)
<b>Total Revenue</b>	<b>\$5,422</b>	<b>\$5,735</b>	<b>\$21,539</b>	<b>\$21,531</b>	<b>\$24,655</b>	<b>\$24,691</b>
Y/Y Growth	5.9%	12.0%	14.8%	14.8%	14.5%	14.7%
GAAP Gross Profit	\$3,150	\$3,452	\$12,557	\$12,741	\$14,326	\$14,798
GAAP Operating Income	(\$1,218)	(\$1,001)	(\$4,466)	(\$4,585)	(\$3,085)	(\$2,783)
Net Income Avail. To Common*	(\$1,978)	(\$1,728)	(\$7,661)	(\$7,726)	(\$6,173)	(\$5,711)
<b>GAAP EPS from Cont. Ops.</b>	<b>(\$0.07)</b>	<b>(\$0.06)</b>	<b>(\$0.28)</b>	<b>(\$0.28)</b>	<b>(\$0.22)</b>	<b>(\$0.20)</b>
GAAP Gross Margin	58.1%	60.2%	58.3%	59.2%	58.1%	59.9%
Research and development	16.0%	15.1%	14.9%	15.5%	13.8%	13.8%
Selling, general and administrative	64.6%	62.6%	64.1%	64.9%	56.8%	57.4%
GAAP Operating Margin	(22.5%)	(17.5%)	(20.7%)	(21.3%)	(12.5%)	(11.3%)

\*Numbers reflect results and estimates from continuing operations

**Balance Sheet:** CASMED exited Q3 with a balance sheet consisting of \$3.9M in cash and \$9.3M in debt. DSO in Q3 was 57, up by 6 days sequentially and at an elevated level for this metric.

## STOCK OPPORTUNITY

We are maintaining our DCF-driven price target of \$4 on CASM, which equates to an EV/Sales multiple of 5.3x our FY19 revenue estimate of \$24.7 million. Overall, we view CASM as a company shifting from a capital-intensive low-margin business built around monitor sales to a higher margin disposables business built around sensor sales. Importantly, this shift has the potential to accelerate once CASM finalizes an OEM partnership, as this



would allow CASM to reduce sales/placements of monitors and to instead partner with a third-party manufacturer that would integrate the technology into its own monitors. Coupled with the potential for growth acceleration if this occurs, we believe CASM is undervalued.

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## RISKS

We believe an investment in CAS Medical involves the following risks:

- **Clinical & Regulatory**

CASM relies on the FDA for product clearance and approval. If they are unable to prove efficacy, safety, or if the FDA delays approval/clearance of their products, this may adversely affect the company and its stock price.

- **Key Personnel**

We believe that Tom Patton is a key member of the management team and if CASM were to lose the services or cooperation of these individuals, the business or stock price may be adversely affected.

- **Hospital Adoption**

One of the challenges for any small medical device company is to gain approval of hospitals' VAC (value assessment committees). This approval is required before physicians can use products in a hospital. CAS Medical will need to secure a place on VAC, GPO, and IDN platforms in order for physicians to use their products. If they are unsuccessful, it will be difficult for them to achieve success.

- **Competition**

Medtronic (Somanetics division) has a market leading position in the cerebral oximetry market. Medtronic is a large, well-capitalized company which may create unexpected challenges for CASM.

- **Sales Execution**

Since CAS Medical currently has limited capital, it is important that they use it wisely to maximize returns for shareholders. At this time, they do not have the financial resources to rapidly develop a vast sales force and will have to be thoughtful with their uses of capital. If CAS Medical uses capital inefficiently, this may negatively impact current shareholders.

- **Manufacturing Risk**

CAS Medical assembles and manufacturers their products at their Branford, CT facility. If there were material manufacturing flaws this may adversely affect their business. If this facility were to fail an FDA inspection, this may present regulatory challenges to their operations and inhibit their ability to introduce new products.

- **Customer Concentration**

CAS Medical's five largest customers account for ~15% of their total revenue. If they were to lose some of these customers, this would adversely affect their business operations.

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## CRAIG-HALLUM ALPHA SELECT LIST

The Alpha Select list is an actively researched collection of small, under-followed public companies that we believe have the potential to become much larger. The Alpha Select List will typically consist of sub-\$250M market cap companies with attractive business models, above average growth trends, favorable macro/secular themes and management teams that we believe have the ability to take the business to the next level.

**CAS Medical Systems, Inc.**  
Fiscal Year Ends December

Income Statement (\$ thousands)	Fiscal 2016A	Mar Q1-17A	Jun Q2-17A	Sep Q3-17A	Dec Q4-17A	Fiscal 2017A	Mar Q1-18A	Jun Q2-18A	Sep Q3-18A	Dec Q4-18E	Fiscal 2018E	Mar Q1-19E	Jun Q2-19E	Sep Q3-19E	Dec Q4-19E	Fiscal 2019E
Total Revenue (adjusted for divestitures)	18,674	4,543	4,572	4,526	5,121	18,763	5,444	5,291	5,382	5,422	21,539	5,728	5,971	6,294	6,662	24,655
<b>Total Revenue (as originally reported)</b>	<b>22,238</b>		<b>4,572</b>	<b>4,526</b>	<b>5,121</b>	<b>18,763</b>	<b>5,444</b>	<b>5,291</b>	<b>5,382</b>	<b>5,422</b>	<b>21,539</b>	<b>5,728</b>	<b>5,971</b>	<b>6,294</b>	<b>6,662</b>	<b>24,655</b>
Cost of sales:																
Total cost of sales	10,091	2,061	2,194	1,882	2,368	8,505	2,358	2,111	2,242	2,272	8,982	2,412	2,508	2,624	2,785	10,328
<b>GAAP Gross Profit</b>	<b>12,147</b>	<b>2,482</b>	<b>2,378</b>	<b>2,644</b>	<b>2,754</b>	<b>10,258</b>	<b>3,087</b>	<b>3,181</b>	<b>3,140</b>	<b>3,150</b>	<b>12,557</b>	<b>3,317</b>	<b>3,463</b>	<b>3,669</b>	<b>3,877</b>	<b>14,326</b>
Operating expenses:																
Research and development	3,437	787	858	804	785	3,235	802	834	712	865	3,213	850	850	850	850	3,400
Selling, general and administrative	13,575	3,574	3,503	3,133	3,208	13,418	3,431	3,473	3,403	3,503	13,811	3,481	3,523	3,453	3,553	14,011
<b>GAAP Operating Expenses</b>	<b>17,012</b>	<b>4,361</b>	<b>4,362</b>	<b>3,937</b>	<b>3,993</b>	<b>16,653</b>	<b>4,233</b>	<b>4,307</b>	<b>4,116</b>	<b>4,368</b>	<b>17,024</b>	<b>4,331</b>	<b>4,373</b>	<b>4,303</b>	<b>4,403</b>	<b>17,411</b>
<b>GAAP Operating Income</b>	<b>(4,865)</b>	<b>(1,879)</b>	<b>(1,983)</b>	<b>(1,293)</b>	<b>(1,239)</b>	<b>(6,395)</b>	<b>(1,146)</b>	<b>(1,126)</b>	<b>(976)</b>	<b>(1,218)</b>	<b>(4,466)</b>	<b>(1,015)</b>	<b>(910)</b>	<b>(634)</b>	<b>(526)</b>	<b>(3,085)</b>
Adjusted EBITDA	(3,852)	(1,627)	(1,727)	(1,032)	(982)	(5,369)	(886)	(863)	(709)	(958)	(3,417)	(755)	(650)	(374)	(266)	(2,045)
Interest and other income:																
Interest and other expense	1,006	260	265	275	277	1,076	272	589	308	325	1,493	325	325	325	325	1,300
<b>GAAP Pre-tax Income from Continuing Operations</b>	<b>(5,871)</b>	<b>(2,139)</b>	<b>(2,248)</b>	<b>(1,568)</b>	<b>(1,516)</b>	<b>(7,471)</b>	<b>(1,418)</b>	<b>(1,715)</b>	<b>(1,283)</b>	<b>(1,543)</b>	<b>(5,960)</b>	<b>(1,340)</b>	<b>(1,235)</b>	<b>(959)</b>	<b>(851)</b>	<b>(4,385)</b>
Income tax expense (benefit)	(948)	(104)	(50)	(1,630)	37	(1,746)	-	-	-	-	0	-	-	-	-	0
<b>GAAP Income (Loss) from Continuing Operations</b>	<b>(4,922)</b>	<b>(2,035)</b>	<b>(2,198)</b>	<b>62</b>	<b>(1,554)</b>	<b>(5,725)</b>	<b>(1,418)</b>	<b>(1,715)</b>	<b>(1,283)</b>	<b>(1,543)</b>	<b>(5,960)</b>	<b>(1,340)</b>	<b>(1,235)</b>	<b>(959)</b>	<b>(851)</b>	<b>(4,385)</b>
Discontinued operations:																
Income (loss) from discontinued operations	(201)	295	142	268	40	746	0	0	0	0	0	0	0	0	0	0
Gain (loss) on sale of discontinued operations	2,911			4,388		4,388	0	0	0	0	0	0	0	0	0	0
Income tax expense (benefit)	948	104	50	1,630	(37)	1,746	0	0	0	0	0	0	0	0	0	0
Income (loss) from discontinued operations	1,762	191	93	3,027	77	3,388	0	0	0	0	0	0	0	0	0	0
<b>GAAP Net Income</b>	<b>(3,161)</b>	<b>(1,844)</b>	<b>(2,106)</b>	<b>3,089</b>	<b>(1,476)</b>	<b>(2,337)</b>	<b>(1,418)</b>	<b>(1,715)</b>	<b>(1,283)</b>	<b>(1,543)</b>	<b>(5,960)</b>	<b>(1,340)</b>	<b>(1,235)</b>	<b>(959)</b>	<b>(851)</b>	<b>(4,385)</b>
Preferred Dividends	1,483	387	394	401	408	1,589	415	422	429	434	1,701	439	444	449	454	1,788
<b>GAAP Net Income Available to Common</b>	<b>(4,643)</b>	<b>(2,231)</b>	<b>(2,499)</b>	<b>2,688</b>	<b>(1,884)</b>	<b>(3,926)</b>	<b>(1,833)</b>	<b>(2,137)</b>	<b>(1,713)</b>	<b>(1,978)</b>	<b>(7,661)</b>	<b>(1,779)</b>	<b>(1,679)</b>	<b>(1,409)</b>	<b>(1,306)</b>	<b>(6,173)</b>
<b>Net Income Available to Common from Continuing</b>	<b>(6,405)</b>	<b>(2,422)</b>	<b>(2,592)</b>	<b>(339)</b>	<b>(1,961)</b>	<b>(7,314)</b>	<b>(1,833)</b>	<b>(2,137)</b>	<b>(1,713)</b>	<b>(1,978)</b>	<b>(7,661)</b>	<b>(1,779)</b>	<b>(1,679)</b>	<b>(1,409)</b>	<b>(1,306)</b>	<b>(6,173)</b>
GAAP EPS	(\$0.17)	(\$0.08)	(\$0.09)	\$0.10	(\$0.07)	(\$0.14)	(\$0.07)	(\$0.08)	(\$0.06)	(\$0.07)	(\$0.28)	(\$0.06)	(\$0.06)	(\$0.05)	(\$0.05)	(\$0.22)
<b>GAAP EPS from Continuing Operations</b>	<b>(\$0.24)</b>	<b>(\$0.09)</b>	<b>(\$0.09)</b>	<b>(\$0.01)</b>	<b>(\$0.07)</b>	<b>(\$0.27)</b>	<b>(\$0.07)</b>	<b>(\$0.08)</b>	<b>(\$0.06)</b>	<b>(\$0.07)</b>	<b>(\$0.28)</b>	<b>(\$0.06)</b>	<b>(\$0.06)</b>	<b>(\$0.05)</b>	<b>(\$0.05)</b>	<b>(\$0.22)</b>
Weighted average shares outstanding, diluted	26,827	27,026	27,330	27,430	27,351	27,261	27,612	27,750	27,833	27,933	27,782	28,033	28,133	28,233	28,333	28,183

\*Company provided full pro-forma 1Q17 financials to adjust for the 2Q17 divestiture of the blood pressure monitoring business

% Revenue Analysis:																
<b>GAAP Gross Margin</b>	54.6%	54.6%	52.0%	58.4%	53.8%	54.7%	56.7%	60.1%	58.3%	58.1%	58.3%	57.9%	58.0%	58.3%	58.2%	58.1%
Research and development	15.5%	17.3%	18.8%	17.8%	15.3%	17.2%	14.7%	15.8%	13.2%	16.0%	14.9%	14.8%	14.2%	13.5%	12.8%	13.8%
Selling, general and administrative	61.0%	78.7%	76.6%	69.2%	62.6%	71.5%	63.0%	65.6%	63.2%	64.6%	64.1%	60.8%	59.0%	54.9%	53.3%	56.8%
GAAP Operating Expenses	76.5%	96.0%	95.4%	87.0%	78.0%	88.8%	77.8%	81.4%	76.5%	80.6%	79.0%	75.6%	73.2%	68.4%	66.1%	70.6%
<b>GAAP Operating Margin</b>	<b>(21.9%)</b>	<b>(41.4%)</b>	<b>(43.4%)</b>	<b>(28.6%)</b>	<b>(24.2%)</b>	<b>(34.1%)</b>	<b>(21.1%)</b>	<b>(21.3%)</b>	<b>(18.1%)</b>	<b>(22.5%)</b>	<b>(20.7%)</b>	<b>(17.7%)</b>	<b>(15.2%)</b>	<b>(10.1%)</b>	<b>(7.9%)</b>	<b>(12.5%)</b>
Tax rate	16.2%	4.9%	2.2%	103.9%	(2.5%)	23.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>GAAP Net Margin</b>	<b>(22.1%)</b>	<b>(44.8%)</b>	<b>(48.1%)</b>	<b>1.4%</b>	<b>(30.3%)</b>	<b>(30.5%)</b>	<b>(26.0%)</b>	<b>(32.4%)</b>	<b>(23.8%)</b>	<b>(28.5%)</b>	<b>(27.7%)</b>	<b>(23.4%)</b>	<b>(20.7%)</b>	<b>(15.2%)</b>	<b>(12.8%)</b>	<b>(17.8%)</b>

Y/Y Growth:																
Total Revenue (adjusted for divestitures)	9.9%	1.7%	(1.7%)	(8.8%)	11.4%	0.5%	19.8%	15.7%	18.9%	5.9%	14.8%	5.2%	12.8%	16.9%	22.9%	14.5%
<b>Total Revenue (as originally reported)</b>	<b>2.8%</b>	<b>N/A</b>	<b>(17.5%)</b>	<b>(21.4%)</b>	<b>(6.6%)</b>	<b>(15.6%)</b>	<b>19.8%</b>	<b>15.7%</b>	<b>18.9%</b>	<b>5.9%</b>	<b>14.8%</b>	<b>5.2%</b>	<b>12.8%</b>	<b>16.9%</b>	<b>22.9%</b>	<b>14.5%</b>
GAAP Gross Profit	14.0%	N/A**	N/A**	N/A**	N/A**	N/A**	24.4%	33.7%	18.8%	14.4%	22.4%	7.4%	8.9%	16.8%	23.1%	14.1%
GAAP Operating Income	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Net Income Available to Common from Continuing Operations	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
GAAP EPS from Continuing Operations	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

\*\*Not comparable to prior year numbers due to the divestiture of the blood pressure monitoring business



<b>Balance Sheet</b> (\$ thousands)	<b>Fiscal</b> <b>2016A</b>	<b>Mar</b> <b>Q1-17A</b>	<b>Jun</b> <b>Q2-17A</b>	<b>Sep</b> <b>Q3-17A</b>	<b>Dec</b> <b>Q4-17A</b>	<b>Fiscal</b> <b>2017A</b>	<b>Mar</b> <b>Q1-18A</b>	<b>Jun</b> <b>Q2-18A</b>	<b>Sep</b> <b>Q3-18A</b>
<b>Total Cash &amp; Investments</b>	<b>5,489</b>	<b>4,663</b>	<b>4,100</b>	<b>6,289</b>	<b>5,653</b>	<b>5,653</b>	<b>4,762</b>	<b>5,195</b>	<b>3,862</b>
Cash and cash equivalents	5,489	4,663	4,100	6,289	5,653	5,653	4,762	5,195	3,862
Short Term Equivalents	-	-	-	-	-	-	-	-	-
Accounts receivable	3,322	2,748	2,545	2,329	2,919	2,919	2,705	2,970	3,358
Notes and other receivables	-	-	-	-	15	15	-	-	-
Inventories	1,596	1,457	1,114	1,542	1,076	1,076	927	1,164	1,313
Other current assets	322	325	505	413	338	338	333	452	414
Assets associated with discontinued operations	-	730	509	626	-	-	-	-	-
<b>Total Current Assets</b>	<b>11,371</b>	<b>9,923</b>	<b>8,773</b>	<b>11,199</b>	<b>10,001</b>	<b>10,001</b>	<b>8,727</b>	<b>9,781</b>	<b>8,948</b>
Property and equipment, net	2,562	2,503	2,417	2,349	2,171	2,171	2,134	2,143	1,984
Intangible and other assets, net	791	797	812	815	802	802	797	764	803
<b>Total Assets</b>	<b>14,724</b>	<b>13,223</b>	<b>12,001</b>	<b>14,362</b>	<b>12,975</b>	<b>12,975</b>	<b>11,658</b>	<b>12,688</b>	<b>11,734</b>
Accounts payable	1,075	1,100	687	740	692	692	852	1,240	970
Accrued Expenses	2,240	1,783	1,701	1,762	1,652	1,652	1,748	1,628	2,000
Notes Payable	70	44	151	67	86	86	58	164	68
Note payable - line-of-credit	-	-	1,000	-	-	-	-	-	-
Current portion of long-term debt	840	1,518	1,096	1,911	2,734	2,734	3,019	-	-
Liabilities associated with discontinued operations	93	58	87	76	35	35	-	-	-
Other Current Liabilities	-	-	-	-	-	-	-	-	-
<b>Total Current Liabilities</b>	<b>4,318</b>	<b>4,503</b>	<b>4,722</b>	<b>4,556</b>	<b>5,198</b>	<b>5,198</b>	<b>5,677</b>	<b>3,031</b>	<b>3,038</b>
Deferred gain on sale and leaseback of property	92	58	24	-	-	-	-	-	-
Income taxes payable	-	-	-	-	-	-	-	-	-
Long-term debt, less current portion	6,581	5,972	6,459	5,706	4,943	4,943	4,183	9,145	9,217
Other long-term liabilities	320	320	320	320	320	320	320	400	400
<b>Total Liabilities</b>	<b>11,311</b>	<b>10,853</b>	<b>11,526</b>	<b>10,582</b>	<b>10,462</b>	<b>10,462</b>	<b>10,180</b>	<b>12,576</b>	<b>12,655</b>
Total Stockholders' Equity	3,413	2,370	475	3,780	2,513	2,513	1,477	111	(920)
<b>Total Liabilities and Stockholders' Equity</b>	<b>14,724</b>	<b>13,223</b>	<b>12,001</b>	<b>14,362</b>	<b>12,975</b>	<b>12,975</b>	<b>11,658</b>	<b>12,688</b>	<b>11,734</b>
<b>Book value per share</b>	<b>\$0.13</b>	<b>\$0.09</b>	<b>\$0.02</b>	<b>\$0.14</b>	<b>\$0.09</b>	<b>\$0.09</b>	<b>\$0.05</b>	<b>\$0.00</b>	<b>(\$0.03)</b>

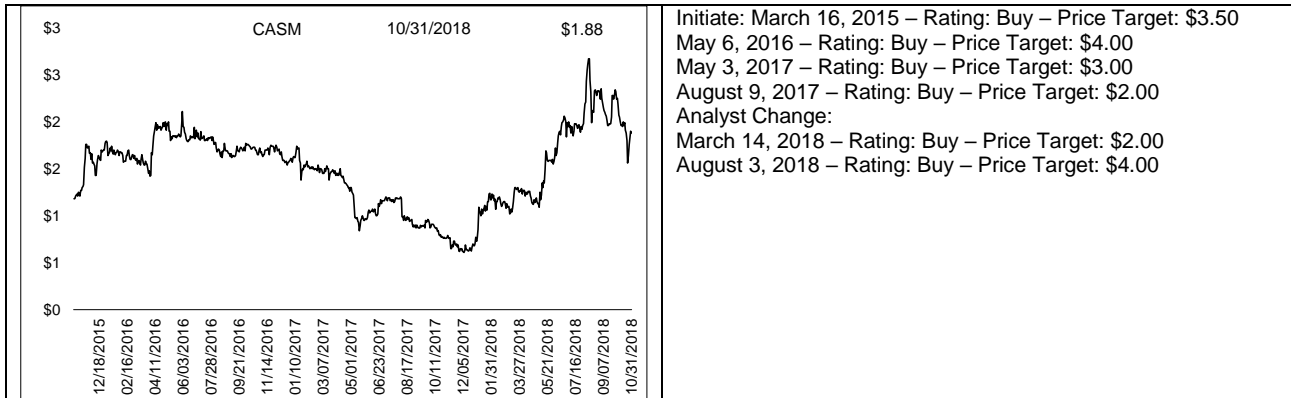
CAS Medical Systems, Inc.  
Discounted Cash Flow Model

(\$ thousands)	FY Estimates (Fiscal Year Ends December)									
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
<b>Total Revenue</b>	21,539	24,655	28,969	34,763	42,585	53,231	66,538	83,173	103,966	107,085
Operating Profit	(4,466)	(3,085)	724	2,607	5,323	9,315	13,308	18,714	25,992	24,094
Less: Cash taxes paid	0	0	0	0	0	0	0	0	3,899	6,024
<b>Operating Profit After Tax</b>	<b>(4,466)</b>	<b>(3,085)</b>	<b>724</b>	<b>2,607</b>	<b>5,323</b>	<b>9,315</b>	<b>13,308</b>	<b>18,714</b>	<b>22,093</b>	<b>18,071</b>
Depreciation and amortization	1,050	1,040	1,113	1,191	1,274	1,363	1,459	1,561	1,670	1,787
Capital expenditures	828	728	757	788	819	852	886	921	958	997
Net investments in working capital	(533)	200	302	406	548	745	932	1,164	1,456	218
<b>FCF</b>	<b>(3,711)</b>	<b>(2,973)</b>	<b>778</b>	<b>2,605</b>	<b>5,230</b>	<b>9,081</b>	<b>12,949</b>	<b>18,189</b>	<b>21,349</b>	<b>18,643</b>
<i>PV of FCF</i>	<i>(3,373)</i>	<i>(2,457)</i>	<i>584</i>	<i>1,779</i>	<i>3,248</i>	<i>5,126</i>	<i>6,645</i>	<i>8,485</i>	<i>9,054</i>	<i>7,188</i>
<b>Perpetual FCF</b>										
Base FCF	18,643									
Weighted Avg. Cost of Capital (k)	10%									
Perpetual Growth Rate (g)	3%									
Base Year	2017									
Perpetual Start Year	2027									
Perpetual Value	274,313									
PV of Perpetual Growth Period	105,759									
<b>Total FCF</b>										
Present Value of FCF	134,850									
<b>Intrinsic Value</b>										
Cash	3,862									
Debt	9,284									
Preferred Stock	13,938									
ESO	2,270									
<i>Value of Equity</i>	113,220									
Shares Outstanding	27,833									
<b>Intrinsic Value per Share</b>	<b>\$4.07</b>									

Sensitivity Analysis						
		FCF Growth				
		4.0%	2.5%	3.0%	3.5%	4.0%
Cost of Capital	9.0%	\$4.81	\$5.21	\$5.68	\$6.24	
	9.5%	\$4.27	\$4.59	\$4.97	\$5.42	
	10.0%	\$3.80	<b>\$4.07</b>	\$4.38	\$4.74	
	10.5%	\$3.39	\$3.62	\$3.88	\$4.18	
	11.0%	\$3.04	\$3.23	\$3.45	\$3.70	
	11.5%	\$2.72	\$2.89	\$3.07	\$3.28	
	12.0%	\$2.45	\$2.59	\$2.75	\$2.92	



## REQUIRED DISCLOSURES



Initiate: March 16, 2015 – Rating: Buy – Price Target: \$3.50  
 May 6, 2016 – Rating: Buy – Price Target: \$4.00  
 May 3, 2017 – Rating: Buy – Price Target: \$3.00  
 August 9, 2017 – Rating: Buy – Price Target: \$2.00  
 Analyst Change:  
 March 14, 2018 – Rating: Buy – Price Target: \$2.00  
 August 3, 2018 – Rating: Buy – Price Target: \$4.00

Source: FactSet

### Ratings definitions:

**Buy** rated stocks generally have twelve month price targets that are more than 20% above the current price. **Hold** rated stocks generally have twelve month price targets near the current price. **Sell** rated stocks generally have no price target and we would sell the stock.

### Fundamental trend definitions:

**Improving** means growth rates of key business metrics are generally accelerating. **Stable** means growth rates of key business metrics are generally steady. **Mixed** means growth rates of some key business metrics are positive but others are negative. **Declining** means growth rates of key business metrics are generally decelerating.

### Ratings Distribution (9/30/2018)

Rating	% Of Companies Covered	% With Investment Banking Relationships
Buy	77%	18%
Hold	21%	2%
Sell	1%	0%
Total	100%	14%

### Information about valuation methods and risks can be found in the “STOCK OPPORTUNITY” and “RISKS” sections, respectively, of this report.

CHLM makes a market in this security.

CHLM expects to receive or intends to seek compensation for investment banking services from the subject company in the next three months.

Analysts receive no direct compensation in connection with the firm’s investment banking business. Analysts may be eligible for bonus compensation based on the overall profitability of the firm, which takes into account revenues from all of the firm’s business, including investment banking.

### OTHER DISCLOSURES

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I, Matt Hewitt, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject security and issuer. No part of my compensation was, is or will be directly or indirectly related to the specific recommendations or views contained herein.