



10 June 2008

AtCor Medical Holdings Limited (ACG)

Speculative Buy

Central Pressure Measurement: The Next Major Medical Paradigm Shift?

\$0.10

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Measures of central pressures and arterial stiffness appear to be gaining significant international attention.

Evidence continues to build that such measurements are much more predictive of cardiovascular disease risk and outcomes.

AtCor recently announced a repeat business order of US\$1.15m with a major pharmaceutical company.

The majority of pharma revenues from the contract will be recognised during FY08.

Company likely to meet FY08 product revenue guidance with this pharma deal.

Summary

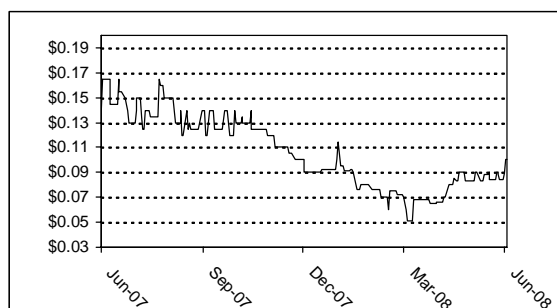
Market Capitalisation (M)	\$10.0
Share Price	\$0.10
Price Target	\$0.24
52 Week High	\$0.20
52 Week Low	\$0.05
Av. Monthly Volume (M Rolling)(M)	2.5
Cash as at 31/3/08 (M)	\$3.7
Est. Cash Burn Per Quarter (M)	\$0.8
Market Cap.: Cash Ratio	2.7

Our View

- We believe the more routine use of central pressure testing in cardiovascular disease (CVD) management and care is approaching a crucial paradigm shift and tipping point. In the medical/scientific community, paradigm shifts can only be implemented through time and with evidence to support the new paradigm. AtCor looks well positioned to capitalise on any paradigm shift. SphygmoCor[®] has been used by research institutes and pharmaceutical companies and has a worldwide installed base of 1,420 machines since 1994. The number of systems installed worldwide has almost doubled since IPO in 4Q CY05 with the number of SphygmoCor[®] specific publications also more than doubling to over 200 since IPO. SphygmoCor[®] has achieved gold standard status in the research market, and since CY00 significant growth in central pressures/arterial stiffness scientific publications has resulted in >1,300 in each of CY06 and CY07. We have provided context to paradigm shifts in medicine by examining two notable Australian originated shifts and tipping points: (1) the development of CPAP for treating obstructive sleep apnoea by Resmed (ASX:RMD) and (2) discovery of the cause of stomach ulcers by two WA researchers, resulting in a Nobel prize.
- AtCor has now recorded 3x major orders worth \$4.3m during FY08, having only commenced selling units and services in earnest to pharma during FY07. Based on a management call, the Company has indicated interest remains high and expects progressive execution of further clinical trial contracts in due course. The Company does expect to meet FY08 guidance of 50% growth in product sales (on a constant FX basis). While the AUD appreciation is of concern, we note the inherent natural currency hedge given a significant percentage of the Company's expenses are US denominated and geographic spread of sales is increasing, with our estimates of European sales reaching up to 40% for FY08, up significantly from 28% in FY07. We have made no change to our FY08 product revenue estimates of \$6.8m and NPAT loss of \$4.1m. Indeed, based on the timing of AtCor initiated clinical trials, and measured cost control, there is every chance AtCor will record a smaller than expected loss. We maintain our Speculative Buy recommendation and price target of \$0.24.

Key Financials (A\$'000)

Year End	2007	2008	2009
	Actual	Est.	Est.
Product Sales	4,859	6,803	9,115
Total Revenue	5,736	7,750	9,950
COGS	(1,011)	(1,190)	(1,595)
Net Op. Rev	(5,251)	(3,880)	(2,390)
EBITDA	(5,917)	(4,212)	(2,624)
EBIT	(6,079)	(4,357)	(2,779)
Reported Profit	(5,183)	(4,116)	(2,545)
Reported EPS (c)	(5.2)	(4.1)	(2.3)
PE Ratio (x)	n/a	n/a	n/a
ROE (%)	-43.6%	-56.0%	-50.0%

Share Price Graph (A\$)

Tipping Points & Paradigm Shifts in Clinical Medicine

Paradigm shifts implemented via time and evidence.

A paradigm shift can be neatly defined as a change in perceptions and frames of mind. Tipping points are defined as the levels at which the momentum for change becomes unstoppable. In medicine, there are numerous examples of tipping points / paradigm shifts, which we believe has subsequently led to a change in clinician attitudes and more importantly treatment. In the medical/scientific community, many have argued that paradigm shifts can only be implemented through **time** and with **evidence** to support the new paradigm. Some notable examples of shifts include the use of drug eluting stents in cardiovascular care, use of the internet in healthcare delivery, the health benefits of probiotics “good bacteria” and more recently the identification of a viral cause of cervical cancer and development of Gardasil[®] and Cervix[®] vaccines.

In many respects, tipping points and paradigm shifts are interdependent, though it may be argued the paradigm shift leads to a tipping point. As indicated, medical practitioners in particular possess a natural tendency to resist change. We believe this is why new technologies, despite clinical utility, fail commercially. The old adage of “technology push versus market pull” holds true in healthcare delivery.

We have undertaken more thorough analysis of two excellent examples from the literature. Both are Australian derived technologies/discoveries and possess some element of commonality with a treatment paradigm on offer for AtCor, where a somewhat sceptical medical fraternity was successfully “tipped” in favour of change: **(1)** Resmed (ASX:RMD) and the treatment of obstructive sleep apnoea with continuous positive airway pressure (CPAP) and **(2)** the treatment of stomach ulcers with antibiotics following identification of the causative bacterial agent, *Helicobacter pylori* (*H. pylori*).

As a proxy for the interest that both discoveries unearthed in their respective fields, we have tracked the number of peer-reviewed publications since the discoveries were made and highlighted certain events/milestones that we believe aided in the paradigm shifts for treatment of sleep apnoea and *Helicobacter* infection. Such independent, peer-reviewed publications serve to increase clinician awareness, validate the product offering and drive advocacy and use.

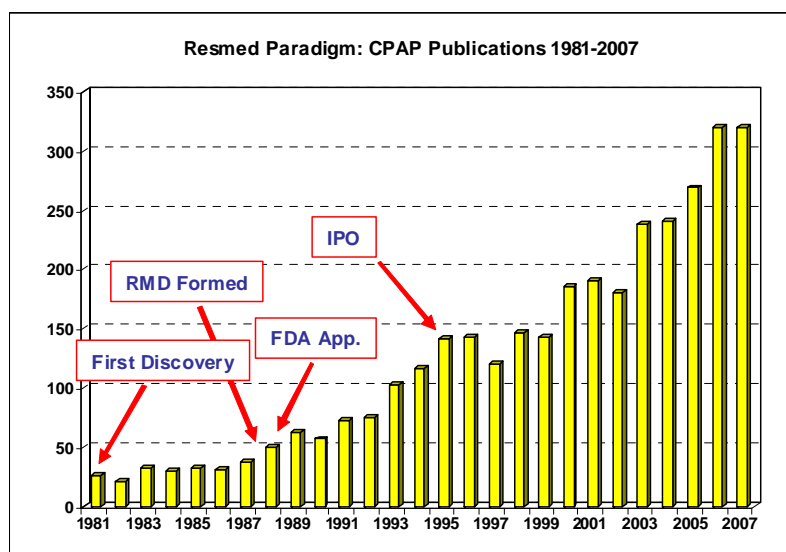
Central pressure measurements look close to a paradigm shift.

Using the same parameter, we believe the more routine use of central pressure testing in cardiovascular disease management and care is approaching a crucial paradigm shift and tipping point. We believe AtCor’s SphygmoCor[®] technology is uniquely positioned to capitalise on this change, due to the fact (1) it is FDA/EU cleared, (2) is the only non-invasive device that measures pressures at the ascending aorta and measures of arterial stiffness and (3) has been used extensively and independently for a number of years by third parties.

Resmed and the Treatment of Obstructive Sleep Apnoea (OSA) with CPAP

Resmed paradigm for CPAP.

Dr Colin Sullivan from the University of Sydney was the first to utilise CPAP in the treatment of sleep apnoea, which some 26 years later remains the gold standard treatment in clinical practice, despite numerous attempts at developing alternative solutions to the same problem. Interestingly, SphygmoCor[®] has reached gold standard status for the measurement of arterial stiffness, albeit in the research setting.



The Resmed paradigm of treating sleep apnoea patients with CPAP has gained significant traction from a peer review perspective since the initial discovery in 1981 (see across). To place Resmed into perspective, its revenues were US\$816k in

1990 (50 CPAP papers), and some two years after FDA clearance/approval of its first CPAP device, and had increased to approximately US\$23.5 million in FY95 (141 papers), the year of the Company's IPO. In FY07, the Company recorded revenues of US\$716 million, where CPAP publications reached 320 for the year.

OSA outcome studies may have contributed to the tipping point.

While we have limited our analysis to publications to CPAP only, we note that total publications on the cause, effect and treatment of sleep disordered breathing totalled 500 preceding Dr Sullivan's original research paper, and subsequently there were 9,000 appearing at the current rate of 60 per month according to Resmed's own analysis back in 2001. The continued growth in research/clinical publications through to 2007 has effectively built the clinical package of OSA as which has in turn grown the market substantially since the Company's IPO. Indeed, data now indicates a causative role of OSA in cardiovascular disease, particularly hypertension and heart disease, but also is a risk factor for stroke.

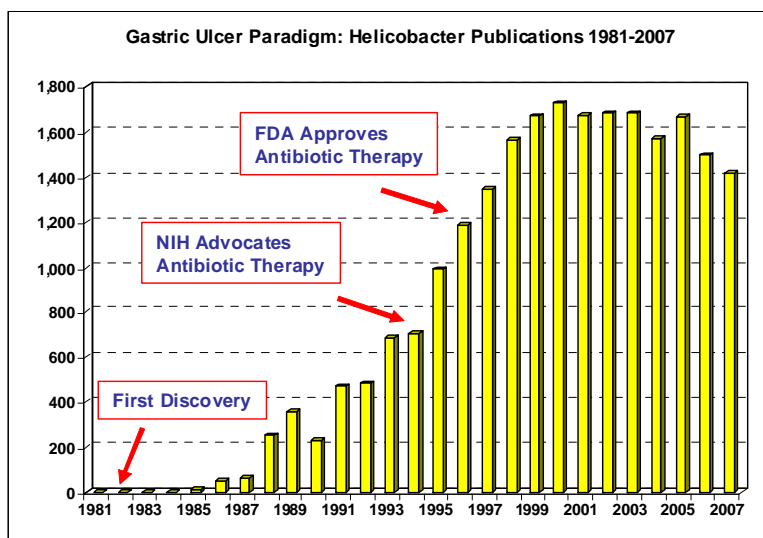
AtCor has reported on major outcome studies.

We see some similarities of such OSA studies with AtCor. Such "outcome" studies are precisely what AtCor continues to report (via independent investigators in most instances) with its SphygmoCor[®] technology, where central pressure measurements (for example) are 50% more predictive than peripheral cuff measures in cardiac outcomes and can detect hypertensive patients considered otherwise normal, when cuff measures were used.

Discovery of Causative Agent of Stomach Ulcers: *Helicobacter*

Stomach ulcer paradigm shift a second example.

We consider the discovery and subsequent treatment paradigm shift for stomach ulcers as a second important Australian-led example of tipping points in clinical practice. For over 100 years, the medical establishment asserted that the stomach by virtue of its acid content made it impossible for organisms to grow in and indeed the stomach was "sterile". Treatment for stomach ulcers were either dietary, or more recently the use of anti-acids were strongly recommended.



NIH advocacy appeared to "tip" clinicians.

Barry Marshall and Robin Warren first made the identification of *Helicobacter* as the causative agent of stomach ulcers in 1981, after famously drinking a mixture of the isolated bacteria, which resulted in the formation of ulcers and cure with antibiotic regimes (see above). Despite significant research over the next 10 years, it appears the first major endorsement came from the National Institutes of Health (NIH) in 1994, which publicly stated the significant role of *Helicobacter* in the development of ulcers, and that such infections should be treated with antibiotics.

This appears to be a key tipping point for widespread adoption by clinicians and the FDA. An argument has been made in the literature that the widespread use of antibiotics by clinicians was actually impaired by the education curve of the pharmaceutical companies who had engrained clinician's view that antacids were the best prescription treatment for gastric ulcers.

Similar advocacy for central pressure measurements has commenced.

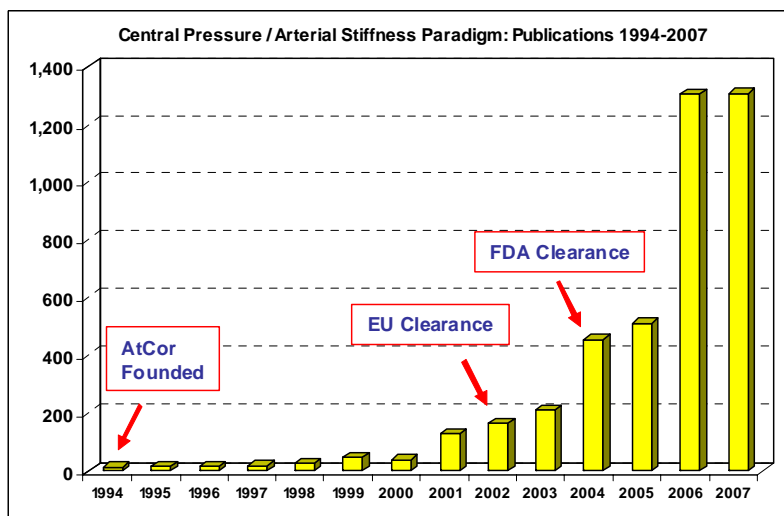
For AtCor Medical, we note that SphygmoCor[®] is currently sold to pharmaceutical companies for use in clinical trials, as a key differentiator for central pressure measurements which was previously not appropriate given the use of invasive catheters. With respect to treatment guidelines, we note the 2007 European Guidelines for the Treatment of Hypertension indicating central pressures are important to detect hypertension drug effects, which will not be seen using traditional cuff blood pressure monitoring. Aside from major clinical outcome studies, we believe this too is an important first step in changing treatment paradigms.

Central Pressure Measurements – The Next Medical Paradigm Shift?

Parallels with support building for central pressure measurements.

32 fold increase in publications since 2000.

We parallel such observations discussed with the current level of support for the clinical use of central pressure measurements as a more reliable predictor of cardiovascular disease (CVD) risk versus traditional peripheral (cuff) measures. Publications in this field, including studies on arterial stiffness increased 156% between CY05/CY06 and have increased more than 32 fold since 2000 (see across). Very recently, AtCor reported on an independent 10,000+ patient study in the UK, the largest trial of its kind ever undertaken (see previous TC research note).



Recent editorial comments on paradigm shift in central pressures.

AtCor was founded on its non-invasive central pressure measurement device SphygmoCor® in 1994. Two notable milestones in the Company's short history have been EU and FDA clearance for the device. We note that SphygmoCor® itself has been used in over 200 peer reviewed studies, with more recent results in the journal *Hypertension* accompanied by an editorial "Central Aortic Pressure and Cardiovascular Risk: A Paradigm Shift?" (See most recent TC research). This article was the premise for examining medical paradigm shifts contained in this report. The author postulates the notion of a paradigm shift in the understanding of the relevance of conventional blood pressure measurement by the introduction of non-invasive central aortic pressure.

The magnitude of medical and scientific interest in central pressure measurement and arterial stiffness as judged by peer review over the last two calendar years has exceeded that observed for the CPAP paradigm shift in sleep apnoea and *Helicobacter pylori*. Referring back to the original hypothesis that paradigm shifts can only be implemented by (1) **time** and (2) **evidence** we make several interesting observations.

Central pressure testing with SphygmoCor® has grown significantly.

SphygmoCor® has been used by research institutes and pharmaceutical companies and has a worldwide installed base of 1,420 machines since 1994. The number of systems installed worldwide has almost doubled since IPO in 4Q CY05 with the number of SphygmoCor® specific publications also more than doubling to over 200 since IPO. As indicated, SphygmoCor® has achieved gold standard status in the research market and over the last few years while explosive growth in central pressures/arterial stiffness scientific publications has resulted since 2000. We therefore believe SphygmoCor® has all the ingredients necessary to capture a significant share of any paradigm shift towards central pressure measurement.

However, we place a *caveat* on our analysis to the extent that we believe a paradigm shift or tipping point in central pressures has yet to be reached. We have seen several interviews with respected clinicians who believe further evidence will be necessary to drive future clinician use. AtCor does expect further independent publications within the 3Q CY08, which may further help to satisfy clinicians on the merits of both central pressure measures and SphygmoCor®.

Perhaps the real tipping point for SphygmoCor® and central pressures will eventuate from medical reimbursement for the procedure in the US. The Company has indicated it will target state-based coverage decisions during 3Q CY08, with a view to file for a national reimbursement code with the American Medical Association in mid 4Q CY08.

ACG - Summary of Forecasts

ACG \$ 0.10

PROFIT & LOSS SUMMARY (A\$000s)					
Period	FY06A	FY07A	FY08E	FY09E	FY10E
Total Revenue	4,285	5,736	7,750	9,950	13,464
Growth (pcp)	22.8%	33.9%	35.1%	28.4%	35.3%
Cost of Goods Sold	(965)	(1,011)	(1,190)	(1,595)	(2,233)
Gross Margin	71.1%	79.2%	82.5%	82.5%	82.5%
Net Operating Revenue	(4,158)	(5,251)	(3,880)	(2,390)	317
Direct R&D Expenses	0	0	0	0	0
EBITDA	(4,720)	(5,917)	(4,212)	(2,624)	215
Dep'n/Other Amort'n	(64)	(162)	(145)	(155)	(179)
EBIT	(4,801)	(6,079)	(4,357)	(2,779)	35
Net Interest	562	666	331	235	101
Pre-Tax Profit	(4,239)	(5,413)	(4,025)	(2,545)	136
Tax Expense	234	230	(91)	0	0
Minorities	0	0	0	0	0
NPAT	(4,005)	(5,183)	(4,116)	(2,545)	136
Growth (pcp)	-35.3%	-29.4%	20.6%	38.2%	310.0%
Net Abnormals	0	0	0	0	0
Reported Profit	(4,005)	(5,183)	(4,116)	(2,545)	136

PER SHARE DATA					
Period	FY06A	FY07A	FY08E	FY09E	FY10E
Reported EPS (c)	(4.0)	(5.2)	(4.1)	(2.3)	0.1
Growth (pcp)	n/a	n/a	-20.6%	-43.8%	-105.4%
EPS Pre-Net R&D (c)	(4.4)	(5.4)	(4.7)	(2.9)	(0.4)
Growth (pcp)	n/a	n/a	-12.3%	-39.6%	-85.3%
Dividend (c)	0.0	0.0	0.0	0.0	0.0
Franking	0%	0%	0%	0%	0%
Gross CF per Share (c)	(4.5)	(4.6)	(4.4)	(3.0)	1.1
NTA per share (c)	14.1	9.1	5.1	4.3	4.3

KEY RATIOS					
Period	FY06A	FY07A	FY08E	FY09E	FY10E
EBITD/Sales Margin %	-110.2%	-103.2%	-54.3%	-26.4%	1.6%
EBIT/Sales Margin %	-112.0%	-106.0%	-56.2%	-27.9%	0.3%
Current ratio (x)	9.8	4.5	2.3	2.0	2.6
Net Debt : Equity (%)	-82.0%	-74.6%	-49.9%	-23.6%	-44.0%
ROE (%)	-51.6%	-43.6%	-56.0%	-50.0%	2.8%
Dividend Payout Ratio (%)	0.0%	0.0%	0.0%	0.0%	0.0%

VALUATION MULTIPLES					
Period	FY06A	FY07A	FY08E	FY09E	FY10E
PE Ratio (x)	n/a	n/a	n/a	n/a	80.6
Dividend Yield (%)	0.0%	0.0%	0.0%	0.0%	0.0%
EV/EBITD (x)	0.4	n/a	n/a	n/a	36.5
EV/EBIT (x)	0.4	n/a	n/a	n/a	223.2

CAPITAL RAISING ASSUMPTIONS					
Period	FY06A	FY07A	FY08E	FY09E	FY10E
Shares Issued (m)	0.0	0.0	0.0	10.0	0.0
Issue Price (A\$)	0.00	0.00	0.00	0.20	0.00
Cash Raised (A\$m)	0.00	0.0	0.0	2.0	0.0

* TC est additional \$0.5m in expenses in FY10 if FY09 US reimbursement achieved

BALANCE SHEET SUMMARY					
Period	FY06A	FY07A	FY08E	FY09E	FY10E
Cash	11,811	6,999	2,658	1,155	2,165
Receivables	1,381	1,446	1,701	2,552	3,829
Pre Payments	0	0	0	0	0
Inventories	294	383	476	638	893
Investments	0	0	0	0	0
Other	213	196	115	115	115
Total Current Assets	13,699	9,024	4,949	4,460	7,002
Investments	0	0	0	0	0
Inventories	0	0	0	0	0
Receivables*	1,697	1,828	1,975	2,134	0
Property Plant & Equip	140	284	320	392	457
Intangibles	309	268	208	177	150
Deferred Tax Assets	0	0	0	0	0
Other	0	0	0	0	0
Total Non-Current Assets	2,146	2,380	2,504	2,703	607
TOTAL ASSETS	15,845	11,404	7,453	7,164	7,609
Accounts Payable	1,388	1,985	1,905	2,005	2,297
Revenue in Advance	0	0	0	0	0
Borrowings	0	0	0	0	0
Deferred Tax Liabilities	0	0	0	0	0
Provisions	16	19	204	273	383
Total Current Liab	1,404	2,004	2,109	2,279	2,680
Borrowings	0	0	0	7	7
Provisions	35	18	20	20	20
Other	0	0	0	0	0
Total Non-Current Liab	35	18	20	27	27
TOTAL LIABILITIES	1,439	2,022	2,129	2,306	2,707
TOTAL EQUITY	14,405	9,382	5,324	4,858	4,903

* Assumes director loans repaid in FY10

CASH FLOW SUMMARY					
Period	FY06A	FY07A	FY08E	FY09E	FY10E
EBIT (excl Abs/Extr)	(4,801)	(6,079)	(4,357)	(2,779)	35
Add: Depreciation	64	121	114	128	157
Change in Pay.	(118)	597	(80)	101	292
Change in Rev. in Ad.	0	0	0	0	0
Less: Tax paid	234	230	(91)	0	0
Net Interest	562	666	331	235	101
Change in Rec.	(353)	(65)	(255)	(852)	858
Change in Inv.	(91)	(89)	(93)	(162)	(255)
Gross Cashflows	(4,486)	(4,578)	(4,399)	(3,303)	1,210
Capex	(97)	(137)	(150)	(200)	(200)
Free Cashflows	(4,583)	(4,715)	(4,549)	(3,503)	1,010
Dividends Paid	0	0	0	0	0
Net Cash Flow	(4,583)	(4,715)	(4,549)	(3,503)	1,010

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