

ResApp Health

Over reaction

- RAP released its top-line results from its US SMARTCOUGH study, with positive results in the largest market indications for LRTI, URTI and asthma, and expects to lodge its FDA de novo application before year end.
- Clinical diagnosis in the US of respiratory disease proves to be highly variable with a third of tests requiring a third adjudicator to act as a tie-breaker.
- While disappointed that the pneumonia results fell short of the benchmark 70% PPA and NPA, we believe the market has overreacted considering the relatively small market size for this indication in the US.
- We have lowered our forecasts to reflect timing of telehealth revenue. The target price has been reduced to A\$0.24 from A\$0.35. Add recommendation maintained.

SMARTCOUGH-C-2 results - major indications successful

RAP produced a positive top-line read-out from the pivotal US children's study for three out of six indications recording above 70% positive percent agreement (PPA) and negative percent agreement (NPA). We view this result as sufficient to gain regulatory approval for lower respiratory tract infection (LRTI), upper respiratory tract infection (URTI) and asthma. The results for croup have been delayed and are expected by November. However pneumonia and bronchiolitis indications did not reach the threshold and will require further study. While a miss on these indications is disappointing, these markets are relatively small in RAP's major markets. Issues hampering the results were high levels of disagreement between clinical adjudicators, with a third of diagnoses requiring a third clinician to act as a tie-breaker. This point shows the level of subjectivity in respiratory diagnosis even with all available tests to clinicians (chest x-rays, microbiology testing, stethoscope), which we believe further enhances the need for objective diagnostics.

What's next?

RAP expects to make its formal FDA and CE mark and TGA submissions by the end of CY18, with regulatory approval due by mid-CY19. The Australian adult study is also expected to be completed shortly with results expected by end CY18. The adult market is 3x larger than the children's market and is a key catalyst. Following on from its successful sleep apnoea study, we expect RAP to compare the algorithm to the Home Sleep Test (HST) over the next 12 months which potentially will diversify its revenue opportunities.

Forecasts revised down

We have revised our forecasts by reducing the fee per test to US\$4 (from US\$5) reflecting fewer indications to be approved and a delay in the timing of signing up telehealth customers.

Investment view - overreaction presents opportunity

Given the changes to forecasts our DCF valuation reduces to A\$0.24 from A\$0.35. We have set our target price at the same level. The key downside risk is failure to achieve FDA approval. RAP is recommended only for investors with a higher risk profile. We retain an Add recommendation.

Financial Summary	Jun-17A	Jun-18A	Jun-19F	Jun-20F	Jun-21F
Revenue (A\$m)	1.14	1.00	0.00	6.72	25.20
Operating EBITDA (A\$m)	(9.97)	(6.49)	(7.04)	(0.52)	17.53
Net Profit (A\$m)	(10.03)	(6.53)	(7.24)	(0.68)	17.40
Normalised EPS (A\$)	(0.015)	(0.010)	(0.010)	(0.001)	0.024
Normalised EPS Growth	204%	(35%)	5%	(91%)	
FD Normalised P/E (x)	NA	NA	NA	NA	4.23
DPS (A\$)	-	-	-	-	-
Dividend Yield	0%	0%	0%	0%	0%
EV/EBITDA (x)	NA	NA	NA	NA	2.83
P/FCFE (x)	NA	NA	NA	NA	4.56
Net Gearing	(75.4%)	(60.4%)	(94.8%)	(92.5%)	(92.9%)
P/BV (x)	5.81	11.89	12.27	9.54	2.84
ROE	(73%)	(77%)	(129%)	(10%)	104%
% Change In Normalised EPS Estimates			(72%)	(111%)	(42%)
Normalised EPS/consensus EPS (x)			1.04	(0.09)	0.59

SOURCE: MORGANS, COMPANY REPORTS

ADD (no change)

Current price:	A\$0.100
Target price:	A\$0.24
Previous target:	A\$0.35
Up/downside:	135.5%
Reuters:	RAP.AX
Bloomberg:	RAP AU
Market cap:	US\$49.18m
	A\$69.31m
Average daily turnover:	US\$0.89m
	A\$1.23m
Current shares o/s	659.0m
Free float:	90.2%

Key changes in this note

FY19F revenue down by 100.0%. FY20F revenue down by 52.0%.

FY21F revenue down by 34.1%.



 Price performance
 1M
 3M
 12M

 Absolute (%)
 -52.4
 -28.6
 44.9

 Relative (%)
 -45.9
 -21.1
 46.8

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Analyst(s) own shares in the following stock(s) mentioned in this report:

ResApp Health

Financial Summary



Figure 1: Financial sum	mary										
Income statement	FY17A	FY18A	FY19F	FY20F	FY21F	Valuation metrics					
income statement	FII/A	FIIOA	гиэг	FIZUF	FIZIF	Share price (A\$)	0.10	Price Ta	rget (A\$)		\$0.24
Total revenue	1.1	1.0	0.0	6.7	25.2	DCF valuation inputs	0.10	T TICC TO	rget (Αψ)		Ψ0.24
EBITDA	-10.0	-6.5	-7.0	-0.5	17.5	Rf	4.00%	10-year rat	Α.		4.00%
Associate income	0.0	0.0	0.0	0.0	0.0	Rm-Rf	5.00%	Margin	-		2.0%
Depreciation	0.0	0.0	0.0	0.0	0.0	Beta	1.70	Kd			4.20%
EBITA	-10.2	-6.6	-7.3	-0.8	17.3	CAPM (Rf+Beta(Rm-Rf))	12.5%	Ke			12.5%
Amortisation/impairment	0.0	0.0	0.0	0.0	0.0	, , , , , , , , , , , , , , , , , , , ,		NPV cash f	low (A\$m)		159.9
EBIT	-10.2	-6.6	-7.3	-0.8	17.3	Equity (E/EV)	100.0%	Minority into)	0.0
Net interest expense	0.2	0.1	0.1	0.1	0.1	Debt (D/EV)	0.0%	Net debt (A\$m)			-3.3
Pre-tax profit	-10.0	-6.5	-7.2	-0.7	17.4	Interest rate	4.20%	Investment	s (A\$m)		0.0
Income tax expense	0.0	0.0	0.0	0.0	0.0	Tax rate (t)	30.0%	Equity mar		\\$m)	163.2
After-tax profit	-10.0	-6.5	-7.2	-0.7	17.4	WACC	12.5%	Diluted no.	of shares	(m)	693.0
Minority interests	0.0	0.0	0.0	0.0	0.0			DCF	valuation	` '	\$0.24
NPAT	-10.0	-6.5	-7.2	-0.7	17.4						
Significant items	0.0	0.0	0.0	0.0	0.0	Multiples	FY17	A FY18A	FY19F	FY20F	FY21F
NPAT post abnormals	-10.0	-6.5	-7.2	-0.7	17.4	Enterprise value (A\$m)	77	9 72.8	74.8	76.4	93.5
						EV/Sales (x)	n	a na	na	11.4	3.7
Cash flow statement	FY17A	FY18A	FY19F	FY20F	FY21F	EV/EBITDA (x)	-7		-10.6	-147.8	5.3
EBITDA	-10.0	-6.5	-7.0	-0.5	17.5	EV/EBIT (x)	-7		-10.2	-97.2	5.4
Change in working capital	4.7	0.2	1.6	-0.5	-1.5	PE (x)	-6		-9.6	-105.9	4.2
Net interest (pd)/rec	0.2	0.1	0.1	0.1	0.1	PEG x)	0		1.8	-1.2	0.0
Taxes paid	0.0	0.0	0.0	0.0	0.0	,			-	_	
Other oper cash items	0.0	0.0	0.0	0.0	0.0						
Cash flow from ops (1)	-5.0	-6.2	-5.3	-1.0	16.1	Per share data	FY17	A FY18A	FY19F	FY20F	FY21F
Capex(2)	0.0	0.0	0.0	0.0	0.0	No. shares	659		659.0	693.0	721.0
Disposals/(acquisitions)	0.0	0.0	0.0	0.0	0.0	EPS (cps)	-1		-1.0	-0.1	2.4
Other investing cash flow	0.0	0.0	0.0	0.0	0.0	Dividend per share (c)	0		0.0	0.0	0.0
Cash flow from investing (3)	0.0	0.0	0.0	0.0	0.0	Dividend payout ratio (%)	0.0		0.0%	0.0%	0.0%
Incr/(decr) in equity	0.3	0.0	7.5	2.8	1.2	Dividend yield (%)	0.0		0.0%	0.0%	0.0%
Incr/(decr) in debt	0.0	0.0	0.0	0.0	0.0			,,,	010,0	0.070	0.070
Ordinary dividend paid	0.0	0.0	0.0	0.0	0.0	Growth ratios	FY17	A FY18A	FY19F	FY20F	FY21F
Preferred dividends (4)	0.0	0.0	0.0	0.0	0.0						
Other financing cash flow	0.0	0.0	0.0	0.0	0.0	Sales growth	n	a na	na	na	275.0%
Cash flow from fin (5)	0.3	0.0	7.5	2.8	1.2	Operating cost growth	237.69		-6.0%	2.8%	6.0%
Forex and disc ops (6)	0.0	0.0	0.0	0.0	0.0	EBITDA growth	-202.9		-8.5%		3492.1%
Inc/(decr) cash (1+3+5+6)	-4.8	-6.2	2.1	1.8	17.4	EBITA growth	-211.19		-10.4%		2296.5%
Equity FCF (1+2+4)	-5.0	-6.2	-5.3	-1.0	16.1	EBIT growth	-211.19		-10.4%		2296.5%
						NPAT growth	-208.89		-10.8%		2656.2%
Balance sheet	FY17A	FY18A	FY19F	FY20F	FY21F	Normalised EPS growth	-204.0		-5.4%		2604.1%
Cash & deposits	8.6	3.4	5.4	7.0	24.1	3					
Trade debtors	0.1	0.0	0.0	0.3	1.0	Operating performance	FY17	A FY18A	FY19F	FY20F	FY21F
Inventory	0.0	0.0	0.0	0.3	1.3	Asset turnover (%)	2		0.0	18.4	32.5
Other current assets	1.2	1.0	1.0	1.0	1.0	EBITDA margin (%)		a na	na	-7.7	69.6
Goodwill	0.0	0.0	0.0	0.0	0.0	EBIT margin (%)		a na	na	-11.7	68.5
Other intangible assets	2.2	2.0	1.8	1.5	1.2	Net profit margin (%)		a na	na	-10.1	69.0
Fixed assets	0.0	0.0	0.0	0.0	0.0	Return on net assets (%)	-90		-105.6	-20.5	-90.2
Investments	0.0	0.0	0.0	0.0	0.0	Net debt (A\$m)	-8		-5.4	-7.0	-24.1
Other assets	0.0	0.0	0.0	0.0	0.0	Net debt/equity (%)	-75		-94.8	-92.5	-92.9
Total assets	12.0	6.5	8.1	10.1	28.6	Net interest/EBIT cover (x)			* ***		
Short-term borrowings	0.0	0.0	0.0	0.0	0.0	Invested capital	7.	5 2.4	1.9	0.0	0.3
Trade payables	0.6	0.8	2.3	2.4	2.5	ROIC (%)	-133		-376.1	-2889.3	5771.8
Long-term borrowings	0.0	0.0	0.0	0.0	0.0	Internal liquidity	FY17		FY19F	FY20F	FY21F
Other term liabilities	0.1	0.1	0.1	0.1	0.1	Current ratio (x)	16		2.8	3.6	10.9
Other liabilities	0.0	0.0	0.0	0.0	0.0	Receivables turnover (x)	12		0.0	48.7	38.4
Total liabilities	0.6	1.0	2.5	2.6	2.7	Payables turnover (x)	27		4.6	3.1	3.1
Share capital	21.8	21.8	29.3	32.1	33.3	Jan. 1			***		
Other reserves	6.3	7.1	7.1	7.1	7.1						
Retained earnings	-16.8	-23.3	-30.7	-31.6	-14.4						
Other equity	0.0	0.0	0.0	0.0	0.0						
Total equity	11.3	5.5	5.7	7.6	25.9						
Minority interest	0.0	0.0	0.0	0.0	0.0						
Total shareholders' equity	11.3	5.5	5.7	7.6	25.9						
Total liabilities & SE	12.0	6.5	8.1	10.1	28.6						
	SOURCE: MORGANS RESEARCH, COMPANY										
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SMARTCOUGH-C-2 results

RAP has released its top-line results for the pivotal US children's study. The results signify a pivotal point for RAP and it will now look to engage with the FDA for approval for its three largest target indications. We anticipate strong interest for the diagnostic, in particular from large telehealth providers and expect to see newflow regarding potential partnerships developing heading into the FDA de novo / CE mark / TGA approval process.

Figure 2: AUS & US paediatrics results								
Condition	ļ							
Condition	# patients	# patients	PPA %	NPA %	Outcome			
Lower Respiratory Tract Disease	Y	N						
- cough + patient symptom input	412	775	73%	77%	+ve			
95% CI level			68-77%	74-80%				
Asthma/Reactive Airways Disease								
- cough + patient symptom input	176	886	71%	86%	+ve			
95% CI level			64-78%	83-88%				
Asthma/Reactive Airways Disease (>2 year old)								
- cough + patient symptom input	166	779	75%	84%	+ve			
95% CI level			68-82%	82-87%				
Croup								
- cough alone	n.a.	n.a.			n.a.			
95% CI level								
Pneumonia								
- cough + patient symptom input	100	1150	63%	62%	-ve			
95% CI level			53-72%	59-65%				
Primary Upper Respiratory Tract Infection								
- cough + patient symptom input	166	453	77%	71%	+ve			
95% CI level			73-80%	66-78%				
Bronchiolitis								
- cough + patient symptom input	42	89	76%	60%	-ve			
95% CI level			60-88%	59-70%				

Sleep Apnoea results

RAP recently released some positive results from its Prospective Sleep Apnoea Clinical Study. The study showed a strong correlation with the gold standard inlaboratory polysomnography testing, with 80% - 84% specificity (test results identifying OSA against a positive diagnosis) and 80% - 83% specificity (test results identifying patient does not have OSA against a negative diagnosis) with patients with mild to severe OSA (AHI 5-14/h = Mild, AHI 15-29/h = Moderate, AHI >30/h = Severe).

We view the results as highly encouraging and expect RAP to next compare the algorithm to the Home Sleep Test (HST) over the next 12 months which potentially will diversify its revenue opportunities.

Figure 3: OSA study results										
Patients ¹										
	Υ	N	AUC	Sensitivity	Specificity					
AHI ≥ 5/h	507	47	0.9	84%	83%					
			(95% CI, 0.87-0.93)	(95% CI, 80-87%)	(95% CI, 69-92%)					
AHI ≥ 15/h	346	205	0.88	80%	80%					
			(95% CI, 0.85-0.91)	(95% CI, 75-84%)	(95% CI, 73-85%)					
AHI ≥ 30/h	191	372	0.9	82%	82%					
			(95% CI, 0.87-0.93)	(95% CI, 76-87%)	(95% CI, 77-86%)					
1 Number of pe	ationto alini	ically coord	d above or bolow the A HI three he	ld w hare the algorithms provide	d a requit For each test the					

^{1.} Number of patients clinically scored above or below the AHI threshold where the algorithms provided a result. For each test, the algorithms were not able to provide a result for a small number of patients [AHI ≥ 5/h, 28 (5%) patients; AHI ≥ 15/h, 31 (5%) patients; AHI ≥ 30/h, 19 (3%) patients].

SOURCE: MORGANS RESEARCH, COMPANY



Changes to forecasts

		FY20F		FY21F					
	Prev	Rev	% chg	Prev	Rev	% chg	Prev	Rev	% ch
Revenue	3.0	0.0	-100.0%	14.0	6.7	-52.0%	38.3	25.2	-34.1%
EBITDA	(4.1)	(7.0)	-71.7%	6.6	(0.5)	-107.8%	30.3	17.5	-42.2%
NPAT	(4.3)	(7.2)	-68.3%	6.6	(0.7)	-110.4%	30.4	17.4	-42.8%
EPS	(0.6)	(1.0)	-72.2%	0.9	(0.1)	-110.6%	4.0	2.4	-41.6%
Div yield	0.0%	0.0%	n.a.	0.0%	0.0%	n.a.	0.0%	0.0%	n.a



Queensland		New South Wale	S	Victoria		Western Australia	
Brisbane	+61 7 3334 4888	Sydney	+61 2 9043 7900	Melbourne	+61 3 9947 4111	West Perth	+61 8 6160 8700
Stockbroking, Corporate Advice, Wealth Management		Stockbroking, Corporate Advice, Wealth Management		Stockbroking, Corporate Advice, \	Wealth Management	Stockbroking, Corporate Advice, Wealth Management	
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