UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

FORM 10-Q

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended March 31, 2019

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from_____to_____

Commission File Number 000-51470

AtriCure, Inc.

(Exact name of Registrant as specified in its charter)

Delaware	**34-1940305**
(State or other jurisdiction of incorporation)	**(IRS Employer Identification No.)**

7555 Innovation Way
Mason, OH 45040
(Address of principal executive offices)

(513) 755-4100
(Registrant's telephone number, including area code)

(Former name, former address and former fiscal year, if changed since last report)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $.001 par value	ATRC	NASDAQ

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days: YES ☒ NO ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). YES ☒ NO ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large Accelerated Filer	☒	Accelerated Filer	☐
Non-Accelerated Filer	☐	Smaller reporting company	☐
Emerging growth company	☐		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act: ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act): YES ☐ NO ☒

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

Class	**Outstanding at April 24, 2019**
Common Stock, $.001 par value	38,623,450

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PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

ATRICURE, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS
(In Thousands, Except Per Share Amounts)
(Unaudited)

	March 31, 2019	December 31, 2018
Assets		
Current assets:		
Cash and cash equivalents	$ 20,720	$ 32,231
Short-term investments	79,910	92,171
Accounts receivable, less allowance for doubtful accounts of $549 and $547	26,662	25,195
Inventories	24,122	22,484
Prepaid and other current assets	3,605	2,592
Total current assets	155,019	174,673
Property and equipment, net	27,050	27,080
Operating lease right-of-use assets	1,778	—
Intangible assets, net	48,770	49,254
Goodwill	105,257	105,257
Other noncurrent assets	486	495
Total Assets	$ 338,360	$ 356,759
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 10,375	$ 9,659
Accrued liabilities	17,051	25,840
Other current liabilities and current maturities of leases and long-term debt	8,039	4,717
Total current liabilities	35,465	40,216
Finance lease liabilities	12,004	12,172
Long-term debt	32,737	35,571
Operating lease liabilities	1,338	—
Other noncurrent liabilities	17,524	19,419
Total Liabilities	99,068	107,378
Commitments and contingencies (Note 8)		
Stockholders' Equity:		
Common stock, $0.001 par value, 90,000 shares authorized and 38,658 and 38,604 issued and outstanding	39	39
Additional paid-in capital	492,177	496,544
Accumulated other comprehensive (loss) income	(286)	(199)
Accumulated deficit	(252,638)	(247,003)
Total Stockholders' Equity	239,292	249,381
Total Liabilities and Stockholders' Equity	$ 338,360	$ 356,759

See accompanying notes to condensed consolidated financial statements.

ATRICURE, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(In Thousands, Except Per Share Amounts)
(Unaudited)

	Three Months Ended March 31,	
	2019	2018
Revenue	$ 53,966	$ 46,994
Cost of revenue	14,095	12,491
Gross profit	39,871	34,503
Operating expenses:		
Research and development expenses	8,176	9,057
Selling, general and administrative expenses	37,015	34,876
Total operating expenses	45,191	43,933
Loss from operations	(5,320)	(9,430)
Other income (expense):		
Interest expense	(862)	(820)
Interest income	720	76
Other	(107)	88
Loss before income tax expense	(5,569)	(10,086)
Income tax expense	66	48
Net loss	$ (5,635)	$ (10,134)
Basic and diluted net loss per share	$ (0.15)	$ (0.31)
Weighted average shares outstanding—basic and diluted	36,976	32,926
Comprehensive loss:		
Unrealized gain (loss) on investments	$ 66	$ (8)
Foreign currency translation adjustment	(153)	86
Other comprehensive (loss) income	(87)	78
Net loss	(5,635)	(10,134)
Comprehensive loss, net of tax	$ (5,722)	$ (10,056)

See accompanying notes to condensed consolidated financial statements.

ATRICURE, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In Thousands)
(Unaudited)

	Three-Month Period Ended March 31, 2018					
	Common Stock		Additional Paid-in	Accumulated	Accumulated Other Comprehensive	Total Stockholders'
	Shares	Amount	Capital	Deficit	Income (Loss)	Equity
Balance—December 31, 2017	34,586	$ 35	$ 386,963	$ (225,866)	$ 34	$ 161,166
Issuance of common stock under equity incentive plans	453	—	(1,877)	—	—	(1,877)
Share-based employee compensation expense	—	—	3,890	—	—	3,890
Other comprehensive income	—	—	—	—	78	78
Net loss	—	—	—	(10,134)	—	(10,134)
Balance—March 31, 2018	35,039	$ 35	$ 388,976	$ (236,000)	$ 112	$ 153,123

	Three-Month Period Ended March 31, 2019					
	Common Stock		Additional Paid-in	Accumulated	Accumulated Other Comprehensive	Total Stockholders'
	Shares	Amount	Capital	Deficit	Income (Loss)	Equity
Balance—December 31, 2018	38,604	$ 39	$ 496,544	$ (247,003)	$ (199)	$ 249,381
Issuance of common stock under equity incentive plans	54	—	(8,521)	—	—	(8,521)
Share-based employee compensation expense	—	—	4,154	—	—	4,154
Other comprehensive loss	—	—	—	—	(87)	(87)
Net loss	—	—	—	(5,635)	—	(5,635)
Balance—March 31, 2019	38,658	$ 39	$ 492,177	$ (252,638)	$ (286)	$ 239,292

See accompanying notes to condensed consolidated financial statements.

ATRICURE, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In Thousands)
(Unaudited)

	Three Months Ended March 31,	
	2019	2018
Cash flows from operating activities:		
Net loss	$ (5,635)	$ (10,134)
Adjustments to reconcile net loss to net cash used in operating activities:		
Share-based compensation expense	4,154	3,890
Depreciation	1,744	1,857
Amortization of intangible assets	484	342
Amortization of deferred financing costs	55	93
Non-cash lease expense	103	—
(Gain) loss on disposal of property and equipment	261	(5)
Realized (gain) loss from foreign exchange on intercompany transactions	72	(82)
Accretion of investments	(391)	(15)
Change in allowance for doubtful accounts	—	51
Change in value of contingent consideration	(1,667)	—
Changes in operating assets and liabilities:		
Accounts receivable	(1,547)	783
Inventories	(1,699)	(43)
Other current assets	(1,023)	(1,540)
Accounts payable	438	(408)
Accrued liabilities	(8,652)	(4,244)
Other noncurrent assets and liabilities	(135)	21
Net cash used in operating activities	(13,438)	(9,434)
Cash flows from investing activities:		
Purchases of available-for-sale securities	(2,947)	(10,359)
Sales and maturities of available-for-sale securities	15,665	8,200
Purchases of property and equipment	(1,709)	(2,086)
Proceeds from sale of property and equipment	8	—
Net cash provided by (used in) investing activities	11,017	(4,245)
Cash flows from financing activities:		
Proceeds from debt borrowings	—	17,381
Payments on debt and leases	(150)	(1,326)
Payments of debt fees	(299)	(1,114)
Proceeds from stock option exercises	80	1,787
Shares repurchased for payment of taxes on stock awards	(8,601)	(3,665)
Net cash (used in) provided by financing activities	(8,970)	13,063
Effect of exchange rate changes on cash and cash equivalents	(120)	36
Net decrease in cash and cash equivalents	(11,511)	(580)
Cash and cash equivalents—beginning of period	32,231	21,809
Cash and cash equivalents—end of period	$ 20,720	$ 21,229
Supplemental cash flow information:		
Cash paid for interest	$ 914	$ 416
Cash paid for income taxes	136	—
Non-cash investing and financing activities:		
Accrued purchases of property and equipment	649	178
Assets obtained in exchange for finance lease obligations	—	27
Finance lease early termination	—	(9)

See accompanying notes to condensed consolidated financial statements.

ATRICURE, INC. AND SUBSIDIARIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(In Thousands, except per share amounts)
(Unaudited)

1. DESCRIPTION OF BUSINESS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Nature of the Business—The "Company" or "AtriCure" consists of AtriCure, Inc. and its wholly-owned subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation. The Company is a leading innovator in treatments for atrial fibrillation (Afib) and left atrial appendage (LAA) management and sells its products to medical centers globally through its direct sales force and distributors.

Basis of Presentation—The accompanying interim financial statements have been prepared in accordance with the rules and regulations of the Securities and Exchange Commission (SEC). The accompanying interim financial statements are unaudited, but in the opinion of the Company's management, contain all normal, recurring adjustments considered necessary to present fairly the financial position, results of operations and cash flows for the periods presented in conformity with accounting principles generally accepted in the United States of America (GAAP) applicable to interim periods. Certain information and footnote disclosures included in annual financial statements prepared in accordance with GAAP have been omitted or condensed. The Company believes the disclosures herein are adequate to make the information presented not misleading. Results of operations are not necessarily indicative of the results expected for the full year or for any future period.

The accompanying Condensed Consolidated Financial Statements should be read in conjunction with the audited financial statements of the Company included in the Company's Annual Report on Form 10-K for the year ended December 31, 2018 filed with the SEC.

Cash and Cash Equivalents—The Company considers highly liquid investments with maturities of three months or less at the date of purchase as cash equivalents.

Investments—The Company invests primarily in U.S. government agencies and securities, corporate bonds, commercial paper and asset-backed securities and classifies all investments as available-for-sale. Investments with maturities of less than one year are classified as short-term investments. Investments are recorded at fair value, with unrealized gains and losses recorded as accumulated other comprehensive income. Gains and losses are recognized using the specific identification method when securities are sold and are included in interest income.

Revenue Recognition—The Company recognizes revenue when control of promised goods is transferred to customers in an amount that reflects the consideration the Company expects to be entitled to in exchange for those goods. This generally occurs upon shipment of goods to customers. See Note 9 for further discussion on revenue.

Sales Returns and Allowances—The Company maintains a provision for potential returns of defective or damaged products, products shipped in error and invoice adjustments. The Company adjusts the provision quarterly using a combination of specific identification and an estimated general reserve based on historical experience. Increases to the provision result in a reduction of revenue, and the provision is included in accrued liabilities.

Allowance for Doubtful Accounts Receivable—The Company evaluates the collectability of accounts receivable to determine the appropriate reserve for doubtful accounts. In determining the amount of the reserve, the Company considers aging of account balances, historical credit losses, customer-specific information and other relevant factors. An increase to the allowance for doubtful accounts results in a corresponding increase in selling, general and administrative expenses. The Company reviews accounts receivable and adjusts the allowance based on current circumstances and charges off uncollectible receivables against the allowance when all attempts to collect the receivable have failed. The Company's history of write-offs has not been significant.

Inventories—Inventories are stated at the lower of cost or net realizable value based on the first-in, first-out cost method (FIFO) and consist of raw materials, work in process and finished goods. The Company's industry is characterized by rapid product development and frequent new product introductions. Uncertain timing of product approvals, variability in product launch strategies and variation in product use all impact inventory reserves for excess, obsolete and expired products. An inventory reserve for excess, slow moving and obsolete inventory is recorded quarterly. An increase to inventory reserves results in a corresponding increase in cost of revenue. Inventories are written off against the reserve when they are physically disposed.

(In Thousands, except per share amounts)

Inventories consist of the following:

	March 31, 2019	December 31, 2018
Raw materials	$ 9,988	$ 9,100
Work in process	2,026	1,232
Finished goods	12,108	12,152
Inventories	$ 24,122	$ 22,484

Property and Equipment—Property and equipment is stated at cost less accumulated depreciation. Depreciation is computed using the straight-line method over the estimated useful lives of assets. The estimated useful life by major asset category is the following:

	Estimated Useful Life
Generators and related or ancillary equipment	1 - 3 years
Building under finance lease	15 years
Computers, software and office equipment	3 years
Machinery and equipment	3 - 7 years
Furniture and fixtures	3 - 7 years
Leasehold improvements	5 - 15 years
Equipment under finance leases	3 - 5 years

The Company assesses the useful lives of property and equipment at least annually and retires assets once they are no longer in service. Maintenance and repair costs are expensed as incurred. The Company reviews property and equipment for impairment at least annually using its best estimates based on reasonable and supportable assumptions and expected future cash flows. Property and equipment impairments recorded by the Company have not been significant.

The Company's radiofrequency (RF) and cryo generators are generally placed with customers that use the Company's disposable products. The estimated useful lives of generators are based on anticipated usage by customers and may change in future periods with changes in usage or introduction of new technologies. Depreciation related to generators and related equipment, which is recorded in cost of revenue, was $736 and $827 during the three months ended March 31, 2019 and 2018. As of March 31, 2019 and December 31, 2018, the net carrying value of generators and related equipment included in net property and equipment was $4,542 and $4,545.

Leases—As of January 1, 2019, the Company determines if an arrangement is a lease at inception. The Company has applied the short-term lease recognition exemption and recognizes lease payments in profit or loss for facility leases that have a lease term of 12 months or less at commencement and do not include a purchase option whose exercise is reasonably certain. Operating leases are included in operating lease right-of-use (ROU) assets, other current liabilities and current maturities of leases and long-term debt, and operating lease liabilities. Finance leases are included in property and equipment, other current liabilities and current maturities of leases and long-term debt, and finance lease liabilities.

ROU assets represent the right to use an underlying asset for the lease term, and lease liabilities represent the obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are measured and recorded at the later of the application date and commencement date based on the present value of lease payments over the lease term. The Company uses the implicit rate when readily determinable, however, most of the leases do not provide an implicit rate and therefore, the Company uses our incremental borrowing rate based on the information available at measurement. The operating ROU asset also includes any lease payments made and excludes lease incentives. The lease terms may include options to extend or terminate the lease when it is reasonably certain that we will exercise that option. For real estate and equipment leases, the Company accounts for the lease and non-lease components as a single lease component. Additionally, the portfolio approach is applied to effectively account for the operating lease ROU assets and liabilities based on the term of the underlying lease. Lease expense for lease payments is recognized on a straight-line basis over the lease term. See Note 7 for further discussion of leases.

Intangible Assets—Intangible assets with determinable useful lives are amortized on a straight-line basis over the estimated periods benefited.

Intangible assets include In Process Research and Development (IPR&D), which represents the value of technology acquired in business combinations that has not yet reached technological feasibility. The primary basis for determining technological feasibility is

obtaining specific regulatory approval. IPR&D is accounted for as an indefinite-lived intangible asset until completion or abandonment of the IPR&D project. Upon completion of the development project, IPR&D will be amortized over its estimated useful life. If the IPR&D project is abandoned, the IPR&D would be written off. IPR&D represents an estimate of the fair value of the pre-market approval (PMA) that could result from the CONVERGE IDE clinical trial.

The Company reviews intangible assets at least annually for impairment using its best estimates based on reasonable and supportable assumptions and projections. The Company performs impairment testing annually on October 1.

Goodwill—Goodwill represents the excess of purchase price over the fair value of the net assets acquired in business combinations. The Company's goodwill is accounted for in a single reporting unit representing the Company as a whole. The Company performs impairment testing annually on October 1.

Other Noncurrent Liabilities—Other noncurrent liabilities primarily consist of acquisition-related contingent consideration. Although the Company may settle a portion of the contingent consideration liability in early 2020, the balance is included in noncurrent liabilities as such settlement is both required and expected to be made in shares of the Company's common stock pursuant to the nContact Surgical, Inc. (nContact) merger agreement.

Other Income (Expense)—Other income (expense) consists primarily of foreign currency transaction gains and losses generated by settlements of intercompany balances denominated in Euros and customer invoices transacted in British Pounds.

Taxes—Deferred income tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred income tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred income tax assets and liabilities from a change in tax rates is recognized in the period that includes the enactment date.

The Company's estimate of the valuation allowance for deferred income tax assets requires significant estimates and judgments about future operating results. Deferred income tax assets are reduced by valuation allowances if, based on the consideration of all available evidence, it is more-likely-than-not that the deferred income tax asset will not be realized. Significant weight is given to evidence that can be objectively verified. The Company evaluates deferred income tax assets on an annual basis to determine if valuation allowances are required. Deferred income tax assets are realized by having sufficient future taxable income to allow the related tax benefits to reduce taxes otherwise payable. The sources of taxable income that may be available to realize the benefit of deferred income tax assets are future reversals of existing taxable temporary differences, future taxable income, exclusive of reversing temporary differences and carryforwards and tax planning strategies that are both prudent and feasible. In evaluating the need for a valuation allowance, the existence of cumulative losses in recent years is significant objectively verifiable negative evidence that must be overcome by objectively verifiable positive evidence to avoid the need to record a valuation allowance. The Company has recorded a full valuation allowance against substantially all net deferred income tax assets as it is more-likely-than-not that the benefit of the deferred income tax assets will not be recognized in future periods. The Tax Reform Act provides companies with the ability to elect to reclassify the income tax effects of the Tax Reform Act on items within accumulated other comprehensive income (loss) to retained earnings. The Company has not made this election due to its full valuation allowance.

Net Loss Per Share—Basic and diluted net loss per share is computed by dividing the net loss by the weighted average number of common shares outstanding during the period. Since the Company has experienced net losses for all periods presented, net loss per share excludes the effect of 3,640 and 4,216 stock options, restricted stock shares, restricted stock units and performance award shares as of March 31, 2019 and 2018 because they are anti-dilutive. Therefore, the number of shares calculated for basic net loss per share is also used for the diluted net loss per share calculation.

Comprehensive Loss and Accumulated Other Comprehensive Income (Loss)—In addition to net losses, the comprehensive loss includes foreign currency translation adjustments and unrealized losses on investments.

(In Thousands, except per share amounts)

Accumulated other comprehensive income (loss) consisted of the following (net of tax):

	Three Months Ended March 31,	
	2019	2018
Total accumulated other comprehensive income (loss) at beginning of period	$ (199)	$ 34
Unrealized Gains (Losses) on Investments		
Balance at beginning of period	$ (37)	$ (6)
Other comprehensive income (loss) before reclassifications	66	(8)
Amounts reclassified from accumulated other comprehensive income (loss) to other income (loss)	—	—
Balance at end of period	$ 29	$ (14)
Foreign Currency Translation Adjustment		
Balance at beginning of period	$ (162)	$ 40
Other comprehensive (loss) income before reclassifications	(225)	168
Amounts reclassified from accumulated other comprehensive (loss) income to other income (loss)	72	(82)
Balance at end of period	$ (315)	$ 126
Total accumulated other comprehensive (loss) income at end of period	$ (286)	$ 112

Research and Development Costs—Research and development costs are expensed as incurred. These costs include compensation and other internal and external costs associated with the development of and research related to new and existing products or concepts, preclinical studies, clinical trials and regulatory affairs.

Advertising Costs—The Company expenses advertising costs as incurred. Advertising costs were not significant during the three months ended March 31, 2019 and 2018.

Share-Based Compensation—The Company records share-based compensation for all employee share-based payment awards, including stock options, restricted stock awards, restricted stock units, performance shares and stock purchases related to an employee stock purchase plan, based on estimated fair values. The value of the portion of an award that is ultimately expected to vest, net of estimated forfeitures, is recognized as expense over the service period. The Company estimates forfeitures at the time of grant and adjusts them in subsequent periods as actual forfeitures differ from those estimates. The Company recognized share-based compensation expense of $4,154 and $3,890 for the three months ended March 31, 2019 and 2018.

The Company estimates the fair value of time-based options on the date of grant using the Black-Scholes option-pricing model (Black-Scholes model). Fair value is affected by the Company's stock price, as well as subjective variables. These variables include, but are not limited to, the Company's expected stock price volatility over the term of the awards and actual and projected employee stock option exercise behaviors. The Company estimates the fair value of restricted stock awards, restricted stock units and performance share awards based upon the grant date closing market price of the Company's common stock.

The Company also has an employee stock purchase plan (ESPP) which is available to all eligible employees as defined by the plan document. Under the ESPP, shares of the Company's common stock may be purchased at a discount. At the beginning of each purchase period, the Company estimates the number of shares to be purchased under the ESPP based upon the fair value of the stock at the beginning of the purchase period using the Black-Scholes model. Estimated compensation expense is recorded during the purchase period and is adjusted to actual at the time of share purchase.

Use of Estimates—The preparation of the financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expense during the reporting period. Actual results could differ from those estimates.

2. RECENT ACCOUNTING PRONOUNCEMENTS

In February 2016, the FASB issued ASU 2016-02, "Leases" (ASU 2016-02), codified as ASC 842, which requires lessees to record most leases onto their balance sheet but recognize expenses on their income statement in a manner similar to legacy lease guidance of ASC 840 "Leases". The Company adopted the new guidance on January 1, 2019 using the transition method provided by ASU 2018-11, "Leases (Topic 842): Targeted Improvements". Under this method, the Company has applied the new requirements to

those leases that exist as of January 1, 2019, rather than at the earliest comparative period presented in the financial statements. Prior periods are presented under legacy ASC 840 lease guidance. Upon transition, the Company has applied the package of practical expedients permitted under ASC 842 transition guidance. As a result, the Company is not required to reassess (1) whether expired or existing contracts contain leases under the new definition of a lease, including whether an existing or expired contract contains an embedded lease, (2) lease classification for expired or existing leases and (3) any initial direct costs of existing leases. The Company has applied the short-term lease recognition exemption and recognizes lease payments in profit or loss for leases that have a lease term of 12 months or less at commencement and do not include a renewal option whose exercise is reasonably certain. As a result of the adoption, the Company recorded operating right-of-use assets and operating lease liabilities of approximately $1,884 and $2,189 as of January 1, 2019. The difference between the initial operating right-of-use asset and operating lease liability of $305 is accrued rent previously recognized under ASC 840. There was no cumulative effect on beginning accumulated deficit as a result of adoption. See Note 7 for further details.

In January 2017, the FASB issued ASU 2017-04, “Intangibles - Goodwill and Other (Topic 350): Simplifying the Accounting for Goodwill Impairment” (ASU 2017-04). The guidance removes the requirement to perform a hypothetical purchase price allocation to measure goodwill impairment. Under ASU 2017-04, a goodwill impairment will be the amount by which a reporting unit’s carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. The guidance becomes effective for annual reporting periods beginning after December 15, 2019 and interim periods within those fiscal years, with early adoption permitted, and applied prospectively. The Company is evaluating the provisions of ASU 2017-04 to determine the impact on its consolidated financial statements and related disclosures.

In August 2018, the FASB issued ASU 2018-13, “Fair Value Measurement (Topic 820), Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement” (ASU 2018-13). The amendments modify the disclosure requirements for fair value measurements and are effective for all entities for interim and annual reporting periods beginning within 2020. Early adoption of either the entire standard or only the provisions that eliminate or modify the requirements is permitted. The Company is evaluating the provisions of ASU 2018-13 to determine the impact on its fair value measurement disclosures.

In August 2018, the FASB issued ASU 2018-15, “Customer’s Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract” (ASU 2018-15). The amendments in this ASU align the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (and hosting arrangements that include an internal-use software license). Entities should apply the guidance in ASC 350-40 on internal-use software when capitalizing implementation costs related to a hosting arrangement that is a service contract and expense the capitalized implementation costs related to a hosting arrangement that is a service contract over the hosting arrangement's term, presenting the expense in the same line item in the statement of operations as that in which the fee associated with the hosting arrangement is presented. The amendments are effective for all entities for interim and annual reporting periods beginning within 2020. Early adoption is permitted, and entities have the option of applying either a retrospective or prospective transition method. The Company is evaluating the provisions of ASU 2018-15 to determine the impact on its consolidated financial statements and related disclosures.

3. FAIR VALUE

Fair value is defined as the price that would be received upon the sale of an asset or paid to transfer a liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value maximize the use of observable inputs and minimize the use of unobservable inputs. The fair value hierarchy is based on three-levels of inputs, of which the first two are considered observable and the last unobservable, that may be used to measure fair value:

- Level 1—Quoted prices in active markets for identical assets or liabilities.
- Level 2—Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- Level 3—Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The Company classifies cash and investments in U.S. government agencies and securities, accounts receivable, short-term other assets, accounts payable and accrued liabilities as Level 1 within the fair value hierarchy. The carrying amounts of these assets and liabilities approximate their fair value due to their relatively short-term nature. Cash equivalents and investments in corporate bonds,

(In Thousands, except per share amounts)

commercial paper and asset-backed securities are classified as Level 2 within the fair value hierarchy. The fair value of fixed term debt is estimated by calculating the net present value of future debt payments at current market interest rates and is classified as Level 2. The book value of the Company's fixed term debt approximates its fair value because the interest rate varies with market rates.

The following table represents the Company's fair value hierarchy for its financial assets and liabilities measured at fair value on a recurring basis as of March 31, 2019:

	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Other Unobservable Inputs (Level 3)	Total
Assets:				
Money market funds	$ —	$ 9,226	$ —	$ 9,226
Commercial paper	—	35,497	—	35,497
U.S. government agencies and securities	5,473	—	—	5,473
Corporate bonds	—	25,626	—	25,626
Asset-backed securities	—	13,314	—	13,314
Total assets	$ 5,473	$ 83,663	$ —	$ 89,136
Liabilities:				
Acquisition-related contingent consideration	—	—	17,106	17,106
Total liabilities	$ —	$ —	$ 17,106	$ 17,106

There were no changes in the levels or methodology of measurement of financial assets and liabilities during the three months ended March 31, 2019.

The following table represents the Company's fair value hierarchy for its financial assets and liabilities measured at fair value on a recurring basis as of December 31, 2018:

	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Other Unobservable Inputs (Level 3)	Total
Assets:				
Money market funds	$ —	$ 16,193	$ —	$ 16,193
Commercial paper	—	40,731	—	40,731
U.S. government agencies and securities	6,734	—	—	6,734
Corporate bonds	—	30,195	—	30,195
Asset-backed securities	—	14,511	—	14,511
Total assets	$ 6,734	$ 101,630	$ —	$ 108,364
Liabilities:				
Acquisition-related contingent consideration	—	—	18,773	18,773
Total liabilities	$ —	$ —	$ 18,773	$ 18,773

Acquisition-Related Contingent Consideration. Contingent consideration arrangements under the nContact merger agreement obligate the Company to pay certain defined amounts to former shareholders of nContact if specified milestones are met related to trial enrollment, regulatory approval and revenue targets. The Company measures contingent consideration liabilities using unobservable inputs by applying an income approach, such as the discounted cash flow technique or the probability-weighted scenario method. Various key assumptions, such as the probability of achievement of the agreed milestones, projected revenues from acquisitions and the discount rate, are used in the determination of fair value of contingent consideration arrangements and are not observable in the market, thus representing a Level 3 measurement within the fair value hierarchy. Subsequent revisions to key assumptions, which impact the estimated fair value of contingent consideration liabilities, are reflected in selling, general and administrative expenses. Acquisition-related contingent consideration is recorded in other noncurrent liabilities.

As a result of the achievement of the trial enrollment milestone in the CONVERGE IDE clinical trial, the Company made cash payments totaling approximately $1,221 and issued and delivered 232 shares of common stock to the former shareholders of nContact on September 20, 2018. The remaining contingent consideration liability was remeasured as of March 31, 2019, resulting in a decrease of fair value of $1,667 during the three months ended March 31, 2019. This decrease is primarily due to a decrease in forecasted revenue for the 2019 commercial milestone.

(In Thousands, except per share amounts)

The following table represents the Company's Level 3 fair value measurements using significant other unobservable inputs for acquisition-related contingent consideration:

	Three Months Ended March 31, 2019	Twelve Months Ended December 31, 2018
Beginning Balance	$ 18,773	$ 37,098
Settlement of trial enrollment milestone	—	(7,500)
Changes in fair value included in earnings	(1,667)	(10,825)
Ending Balance	$ 17,106	$ 18,773

4. INTANGIBLE ASSETS

The following table provides a summary of the Company's intangible assets:

		March 31, 2019		December 31, 2018	
	Estimated Useful Life	Cost	Accumulated Amortization	Cost	Accumulated Amortization
Fusion technology	8 years	$ 9,242	$ 5,136	$ 9,242	$ 4,763
Clamp & probe technology	3 years	829	829	829	829
SUBTLE access technology	5 years	2,179	1,536	2,179	1,425
IPR&D		44,021	—	44,021	—
Total		$ 56,271	$ 7,501	$ 56,271	$ 7,017

Amortization expense of intangible assets with definite lives, which excludes IPR&D, was $484 and $342 for the three months ended March 31, 2019 and 2018. In 2018, the Company reduced the ten-year estimated useful life of the Fusion technology asset by two years based on changes in estimated periods benefited. This change in estimate resulted in additional amortization expense of $143 in the fourth quarter of 2018 and has been applied prospectively.

Intangible assets with definite lives will be fully amortized in 2021. Future amortization expense is projected as follows:

2019 (excluding the three months ended March 31, 2019)	$ 1,452
2020	1,804
2021	1,493
Total	$ 4,749

5. ACCRUED LIABILITIES

Accrued liabilities consisted of the following:

	March 31, 2019	December 31, 2018
Accrued payroll and employee-related expenses	$ 5,683	$ 4,512
Accrued commissions	5,032	8,065
Accrued bonus	2,480	9,100
Sales returns and allowances	1,438	1,410
Accrued royalties	687	662
Accrued taxes and value-added taxes payable	870	886
Other accrued liabilities	861	1,205
Total	$ 17,051	$ 25,840

ATRICURE, INC. AND SUBSIDIARIES
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(In Thousands, except per share amounts)
(Unaudited)

6. INDEBTEDNESS

Credit Facility. The Company has a Loan and Security Agreement (Loan Agreement) with Silicon Valley Bank (SVB). The Loan Agreement, as amended and restated effective February 23, 2018 and as further amended on December 28, 2018, includes a $40,000 term loan and a $20,000 revolving line of credit, with an option to increase the revolving line of credit by up to an additional $20,000. The term loan and revolving credit facility both mature or expire, as applicable, in February 2023.

Principal payments of the term loan are to be made ratably commencing September 2019 through the loan's maturity date. If the Company meets certain conditions, as specified by the Loan Agreement, the commencement of term loan principal payments may be deferred by an additional six months. The term loan accrues interest at the greater of the Prime Rate plus 0.50% or 5.00%. Financing costs related to the term loan of $596 are netted against the outstanding loan balance and amortized ratably over the term of the Loan Agreement.

The revolving line of credit is subject to an annual facility fee of 0.33% of the revolving line of credit, and any borrowings thereunder bear interest at the greater of the Prime Rate or 4.50%. Borrowing availability under the revolving credit facility is based on the lesser of $20,000 or a borrowing base calculation as defined by the Loan Agreement. As of March 31, 2019, the Company had no borrowings under the revolving credit facility and had borrowing availability of $20,000. Financing costs related to the revolving line of credit are included in other assets and amortized ratably over the twelve-month period of the annual fee.

The Loan Agreement also provides for certain prepayment and early termination fees if repaid before January 2020, as well as establishes a minimum liquidity covenant and dividend restrictions, along with other customary terms and conditions. Specified assets have been pledged as collateral.

Future maturities of long-term debt are projected as follows:

2019 (excluding the three months ended March 31, 2019)	$	3,809
2020		11,429
2021		11,429
2022		11,429
2023		1,904
Total debt, of which $6,667 is current and $33,333 is noncurrent	$	40,000

7. LEASES

The Company adopted the new guidance on January 1, 2019 using the transition method provided by ASU 2018-11, "Leases (Topic 842): Targeted Improvements". Under this method, the Company has applied the new requirements to those leases that exist as of January 1, 2019, rather than at the earliest comparative period presented in the financial statements. Prior periods are presented under legacy ASC 840 lease guidance. As a result of the adoption, the Company recorded operating right-of-use assets and operating lease liabilities of approximately $1,884 and $2,189 as of January 1, 2019. The difference between the initial operating right-of-use asset and operating lease liability of $305 is accrued rent previously recognized under ASC 840.

The Company has operating and finance leases for corporate office and warehouse facilities and computer equipment. The Company's leases have remaining lease terms of one year to eleven years. Options to renew or extend leases beyond their initial term have been excluded from measurement of the ROU assets and lease liabilities as exercise is not reasonably certain. The weighted average remaining lease term for operating leases and finance leases was 3.1 years and 11.5 years as of March 31, 2019. The weighted average discount rate used to measure the outstanding operating lease liabilities and finance lease liabilities was 5.8% and 7.3% as of March 31, 2019. In connection with the terms of the Company's corporate headquarters lease, a letter of credit in the amount of $1,250 was issued to the building lessor in October 2015. The letter of credit is renewed annually and remains outstanding as of March 31, 2019.

(In Thousands, except per share amounts)

The components of lease expense were as follows:

	Three Months Ended March 31, 2019
Operating lease cost	$ 159
Finance lease cost:	
Amortization of right-of-use assets	250
Interest on lease liabilities	221
Total finance lease cost	$ 471

Short term lease expense was not significant during the three months ended March 31, 2019.

Supplemental cash flow information related to leases was as follows:

	Three Months Ended March 31, 2019
Cash paid for amounts included in the measurement of lease liabilities:	
Operating cash flows from operating leases	$ 176
Operating cash flows from finance leases	221
Financing cash flows from finance leases	150
Right-of-use assets obtained in exchange for lease obligations:	
Operating Leases	1,884
Finance Leases	—

Supplemental balance sheet information related to leases was as follows:

	March 31, 2019
Operating Leases	
Operating lease right-of-use assets	$ 1,778
Other current liabilities and current maturities of leases and long-term debt	730
Other noncurrent liabilities	1,338
Total operating lease liabilities	$ 2,068
Finance Leases	
Property and equipment, at cost	$ 14,463
Accumulated depreciation	(3,448)
Property and equipment, net	$ 11,015
Other current liabilities and current maturities of leases and long-term debt	$ 642
Finance lease liabilities	12,004
Total finance lease liabilities	$ 12,646

Maturities of lease liabilities as of March 31, 2019 were as follows:

	Operating Leases	Finance Leases
2019 (excluding the three months ended March 31, 2019)	$ 545	$ 1,122
2020	713	1,514
2021	565	1,519
2022	405	1,540
2023	—	1,562
2024	—	1,594
2025 and thereafter	—	9,799
Total payments	$ 2,228	$ 18,650
Less imputed interest	(160)	(6,004)
Total	$ 2,068	$ 12,646

(In Thousands, except per share amounts)

Future minimum lease payments under non-cancelable operating leases as of December 31, 2018 were projected as follows:

2019	$	1,064
2020		893
2021		648
2022		405
Total	$	3,010

8. COMMITMENTS AND CONTINGENCIES

Royalty Agreements. The Company has certain royalty agreements in place with terms that include payment of royalties of 3% to 5% of specified product sales. The royalty agreements have effective dates as early as 2003 and terms ranging from eighteen to at least twenty years, unless terminated earlier. Royalty expense of $709 and $672 is included in cost of revenue for the three months ended March 31, 2019 and 2018.

Purchase Agreements. The Company enters into standard purchase agreements with various suppliers in the ordinary course of business. Outstanding commitments at March 31, 2019 were not significant.

Legal. The Company may, from time to time, become a party to legal proceedings. Such matters are subject to many uncertainties and to outcomes of which the financial impacts are not predictable with assurance and that may not be known for extended periods of time. When management has assessed that a loss is probable and an amount can be reasonably estimated, the Company records a liability.

The Company received a Civil Investigative Demand (CID) from the U.S. Department of Justice (USDOJ) in December 2017 stating that it is investigating the Company to determine whether the Company has violated the False Claims Act, relating to the promotion of certain medical devices related to the treatment of atrial fibrillation for off-label use and submitted or caused to be submitted false claims to certain federal and state health care programs for medically unnecessary healthcare services related to the treatment of atrial fibrillation. The CID covers the period from January 2010 to December 2017 and requires the production of documents and answers to written interrogatories. The Company had no knowledge of the investigation prior to receipt of the CID. The Company maintains rigorous policies and procedures to promote compliance with the False Claims Act and other applicable regulatory requirements. The Company provided the USDOJ with documents and answers to the written interrogatories and is cooperating with its investigation. However, the Company cannot predict when the investigation will be resolved, the outcome of the investigation or its potential impact on the Company.

The Company acquired nContact Surgical, Inc. pursuant to a merger agreement dated October 4, 2015. The merger agreement provides for contingent consideration or “earnout” to be paid upon attaining specified regulatory approvals and clinical and revenue milestones. The merger agreement’s earnout provisions require the Company to deliver periodic earnout reports to a designated representative of former nContact stockholders. In response to the reports delivered in February 2018 and February 2019, the Company received letters from representatives on March 16, 2018 and March 11, 2019. The letters purport to serve as “earnout objection statements” (as that term is defined in the merger agreement) and claim that for purposes of determining the commercial milestone payment, the Company should be including revenues of certain additional items and products that the Company has not included in its earnout statements. The Company has corresponded with the representative regarding the earnout objection statement and disputes the basis of the representative’s claims.

9. REVENUE

The Company adopted FASB ASC 606, “Revenue from Contracts with Customers” (ASC 606) using the modified retrospective method effective January 1, 2018. The adoption of ASC 606 did not have a material impact on the amount and timing of revenue recognized in the condensed consolidated financial statements.

Revenue is generated primarily from the sale of disposable surgical devices. The Company recognizes revenue in an amount that reflects the consideration the Company expects to be entitled to in exchange for those devices when control of promised devices is transferred to customers. At contract inception, the Company assesses the products promised in its contracts with customers and identifies a performance obligation for each promise to transfer to the customer a product that is distinct. The Company’s disposable

surgical devices are distinct and represent performance obligations. These performance obligations are satisfied and revenue is recognized at a point in time upon shipment or delivery of products. Sales of devices are categorized as follows: open-heart ablation, minimally invasive ablation (MIS), appendage management and valve tools. Shipping and handling activities performed after control over products transfers to customers are considered activities to fulfill the promise to transfer the products rather than as separate promises to customers.

Products are sold primarily through a direct sales force and through distributors in select international markets. Terms of sale are generally consistent for both end-users and distributors except that payment terms are generally net 30 days for end-users and net 60 days for distributors, with limited exceptions. The Company does not maintain any post-shipping obligations to customers. No installation, calibration or testing of products is performed by the Company subsequent to shipment in order to render products operational.

Significant judgments and estimates involved in the Company's recognition of revenue include the determination of the timing of transfer of control of products to customers and the estimation for the provision for returns. The Company considers the following indicators when determining when the control of products transfers to customers: (i) the Company has a right to payment in accordance with the shipping terms set forth in its contracts with customers; (ii) customers have legal title to products in accordance with shipping terms; (iii) the Company transfers physical possession of products either when the Company presents the products to a third party carrier for delivery to a customer (FOB shipping point) or when a customer receives the delivered goods (FOB destination); (iv) customers have the significant risks and rewards of ownership of products; and (v) customers have accepted products in connection with contractual shipping terms.

In the normal course of business, the Company does not accept product returns unless a product is defective as manufactured. The Company establishes estimated provisions for returns based on historical experience. The Company does not provide customers with the right to a refund.

The Company expects to be entitled to the total consideration for the products ordered by customers as product pricing is fixed according to the terms of customer contracts and payment terms are short. Payment terms fall within the one-year guidance for the practical expedient which allows the Company to forgo adjustment of the promised amount of consideration for the effects of a significant financing component. The Company excludes taxes assessed by governmental authorities on revenue-producing transactions from the measurement of the transaction price.

Costs associated with product sales include commissions and royalties. Considering that product sales are performance obligations in contracts that are satisfied at a point in time, commission expense associated with product sales and royalties paid based on sales of certain products is incurred at that point in time rather than over time. Therefore, the Company applies the practical expedient and recognizes commissions and royalties as expense when incurred because the expense is incurred at a point in time and the amortization period is less than one year. Commissions are recorded as selling expense and royalties are recorded as cost of revenue.

See Note 12 for disaggregated revenue by geographic area and by product category.

10. INCOME TAX PROVISION

The Company files federal, state, and foreign income tax returns in jurisdictions with varying statutes of limitations. The Company uses the asset and liability method to determine its provision for income taxes. The Company's provision for income taxes in interim periods is computed by applying its estimated annual effective rate against its pre-tax results for the period. Non-recurring items are recorded during the period in which they occur. The effective tax rate for the three months ended March 31, 2019 and 2018 was (1.19%) and (0.47%).

Federal, state and local returns of the Company are routinely subject to review by various taxing authorities. The Company has not accrued any interest and penalties related to unrecognized income tax benefits as a result of offsetting of net operating losses. However, if the situation occurs, the Company will recognize interest and penalties within income tax expense and within the related tax liability.

(In Thousands, except per share amounts)

11. EQUITY COMPENSATION PLANS

The Company has two share-based incentive plans: the 2014 Stock Incentive Plan (2014 Plan) and the 2018 Employee Stock Purchase Plan (ESPP).

Stock Incentive Plan

Under the 2014 Plan, the Board of Directors may grant incentive stock options to employees and may grant restricted stock, restricted stock units, (collectively RSAs), nonstatutory stock options, performance share awards (PSAs) or stock appreciation rights to employees, directors and consultants. The administrator (currently the Compensation Committee of the Board of Directors) has the authority to determine the terms of any awards, including the number of shares subject to each award, the exercisability of the awards and the form of consideration. As of March 31, 2019, 11,099 shares of common stock had been reserved for issuance under the 2014 Plan, and 832 shares were available for future grants.

During 2019 and 2018, the Compensation Committee approved the grant of performance share awards to the Company's named executive officers and certain other employees pursuant to the 2014 Plan. The form of award agreement for the PSAs (PSA Grant Form) provides, among other things, that (i) each PSA that vests represents the right to receive one share of the Company's common stock; (ii) the PSAs vest based on the Company achieving specified performance measurements over a performance period of three years; (iii) the performance measurements include revenue CAGR as defined in the PSA Grant Form; (iv) threshold, target and maximum payout opportunities established for the PSAs will be used to calculate the number of shares that will be issuable when the award vests, which may range from 0% to 200% of the target amount; (v) any PSAs that are earned are scheduled to vest and be settled in shares of the Company's common stock at the end of the performance period; and (vi) all or a portion of the PSAs may vest following a change of control or a termination of service by reason of death or disability (each as described in greater detail in the PSA Grant Form).

With respect to the PSAs, the number of shares that vest and are issued to the recipient is based upon the Company's performance as measured against the specified targets at the end of the three-year performance period as determined by the Compensation Committee. The Company estimates the fair value of the PSAs based on its closing stock price on the grant date and will adjust compensation expense over the performance period based on its estimate of performance target achievement.

Stock options granted prior to 2018 under the 2014 Plan generally expire ten years from the date of grant and generally vest at a rate of 25% on the first anniversary date of the grant and ratably each month thereafter over the following three years. Restricted stock awards granted prior to 2018 generally vest between one and four years from the date of grant. Beginning in 2018, stock options and RSAs granted generally vest in one-third increments on the first, second and third anniversaries of the grant date.

Employee Stock Purchase Plan

The ESPP is available to eligible employees as defined in the plan document. Under the ESPP, shares of the Company's common stock may be purchased at a discount (15%) of the lesser of the closing price of the Company's common stock on the first trading day or the last trading day of the offering period. The offering period (currently six months) and the offering price are subject to change. Participants may not purchase a value of more than $25 of the Company's common stock in a calendar year and may not purchase a value of more than 3 shares during an offering period. As of March 31, 2019, there were 595 shares available for future issuance under the ESPP.

Expense Information Under FASB ASC 718

The following table summarizes the allocation of share-based compensation expense:

	Three Months Ended March 31,	
	2019	2018
Cost of revenue	$ 189	$ 237
Research and development expenses	495	591
Selling, general and administrative expenses	3,470	3,062
Total	$ 4,154	$ 3,890

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(In Thousands, except per share amounts)
(Unaudited)

12. SEGMENT AND GEOGRAPHIC INFORMATION

The Company develops, manufactures, and sells devices designed primarily for the surgical ablation of cardiac tissue and systems designed for the exclusion of the left atrial appendage. These devices are developed and marketed to a broad base of medical centers globally. Management considers all such sales to be part of a single operating segment. Revenue attributed to geographic areas, based on the location of customers, was as follows:

	Three Months Ended March 31,	
	2019	2018
United States	$ 43,004	$ 38,436
Europe	6,785	5,871
Asia	3,914	2,439
Other international	263	248
Total international	10,962	8,558
Total revenue	$ 53,966	$ 46,994

United States revenue by product type was as follows:

	Three Months Ended March 31,	
	2019	2018
Open-heart ablation	$ 18,996	$ 17,579
Minimally invasive ablation	7,762	8,613
Appendage management	15,670	11,797
Total ablation and appendage management	42,428	37,989
Valve tools	576	447
Total United States	$ 43,004	$ 38,436

International revenue by product type was as follows:

	Three Months Ended March 31,	
	2019	2018
Open-heart ablation	$ 6,300	$ 4,909
Minimally invasive ablation	2,129	1,792
Appendage management	2,454	1,798
Total ablation and appendage management	10,883	8,499
Valve tools	79	59
Total international	$ 10,962	$ 8,558

The Company’s long-lived assets are located primarily in the United States, except for $1,444 as of March 31, 2019 and $1,296 as of December 31, 2018, which are located primarily in Europe.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

(Dollar amounts referenced in this Item 2 are in thousands, except per share amounts.)

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the accompanying Condensed Consolidated Financial Statements and notes thereto contained in Item 1 of Part I of this Form 10-Q and our audited financial statements and notes thereto as of and for the year ended December 31, 2018 included in our Form 10-K filed with the Securities and Exchange Commission (SEC) to provide an understanding of our results of operations, financial condition and cash flows.

Forward-Looking Statements

This Form 10-Q, including the sections titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Risk Factors," contains forward-looking statements regarding our future performance. All forward-looking information is inherently uncertain and actual results may differ materially from assumptions, estimates or expectations reflected or contained in the forward-looking statements as a result of various factors, including those set forth under "Risk Factors" and elsewhere in this quarterly report on Form 10-Q, and in our annual report on Form 10-K for the year ended December 31, 2018. Forward-looking statements address our expected future business, financial performance, financial condition and results of operations, and often contain words such as "intends," "estimates," "anticipates," "hopes," "projects," "plans," "expects," "seek," "believes," "see," "should," "will," "would," "target," and similar expressions and the negative versions thereof. Such statements are based only upon current expectations of AtriCure. Any forward-looking statement speaks only as of the date made. Reliance should not be placed on forward-looking statements because they involve known and unknown risks, uncertainties and other factors which may cause actual results, performance or achievements to differ materially from those expressed or implied. Forward-looking statements include statements that address activities, events or developments that AtriCure expects, believes or anticipates will or may occur in the future. Forward-looking statements are based on AtriCure's experience and perception of current conditions, trends, expected future developments and other factors it believes are appropriate under the circumstances and are subject to numerous risks and uncertainties, many of which are beyond AtriCure's control. With respect to the forward-looking statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995. These forward-looking statements speak only as of the date of this Form 10-Q. We undertake no obligation to publicly update or revise any forward-looking statements to reflect new information or future events or otherwise unless required by law.

Overview

We are a leading innovator in treatments for atrial fibrillation (Afib) and left atrial appendage (LAA) management. We have several product lines for the ablation of cardiac tissue, including our Isolator® Synergy™ Ablation System, the first and only surgical device approved by the United States Food and Drug Administration (FDA) for the treatment of persistent and long-standing persistent forms of Afib in patients undergoing certain open concomitant procedures. We also offer a variety of minimally invasive ablation devices and access tools to facilitate the growing trend in less invasive cardiac and thoracic surgery. Our cryoICE® cryosurgery product line offers a variety of cryoablation devices for use in various types of cardiothoracic surgery. Our AtriClip® Left Atrial Appendage Exclusion System is a device specifically designed to occlude the heart's left atrial appendage.

We believe that we are currently the market leader in the surgical treatment of Afib. Our products are used by physicians during both open-heart and minimally invasive surgical procedures, either in conjunction with heart surgery for other conditions ("concomitant" to such a procedure) or on a standalone basis. Our Isolator Synergy System is approved by FDA for the treatment of persistent and long-standing persistent Afib concomitant to other open-heart surgical procedures. All of our other ablation devices are cleared for sale in the United States under FDA 510(k) clearances, including our other RF and cryoablation products, which are indicated for the ablation of cardiac tissue and/or treatment of cardiac arrhythmias. In addition, certain of our cryoablation probes are cleared for managing pain by temporarily ablating peripheral nerves. Our AtriClip products are 510(k)-cleared with an indication for the occlusion of the heart's LAA, performed under direct visualization and in conjunction with other cardiac surgical procedures. Direct visualization, in this context, requires that the surgeon is able to see the heart directly, with or without assistance from a camera, endoscope or other appropriate viewing technologies. We also offer reusable surgical instruments typically used for cardiac valve replacement or repair. Our Isolator Synergy clamps, Isolator Synergy pens, Coolrail® linear pen, cryosurgery devices, certain products of the AtriClip LAA Exclusion System, COBRA Fusion® Ablation System, Numeris™ System and the EPi-Sense® Guided Coagulation System with VisiTrax® technology bear the CE mark and may be commercially distributed throughout the member states of the European Union and other countries that comply with or mirror the Medical Device Directive. We anticipate that substantially all of our revenue for the foreseeable future will relate to products we currently sell, or are in the process of developing.

We sell our products to medical centers through our direct sales force in the United States and in certain international markets, such as Germany, France, the United Kingdom and the Benelux region. We also sell our products to distributors who in turn sell our products to medical centers in other international markets. Our business is transacted in U.S. Dollars with the exception of transactions with our European subsidiaries, which are transacted in Euros or British Pounds.

Recent Developments

In February 2019, we launched the cryoICE® cryoSPHERE™ probe in the United States. The cryoSPHERE probe is the first device in the cryoICE family solely dedicated to blocking pain by temporarily ablating peripheral nerves. The cryoSPHERE probe offers a unique 8mm ball-tip design, bendable distal shaft and an ergonomic handle to provide cardiac, thoracic and general surgeons ease of use when applying the device to the targeted peripheral nerves to block pain. The launch of the cryoSPHERE probe demonstrates AtriCure's commitment to continued innovation in Cryo Nerve Block Therapy (cryoNB). The cryoSPHERE technology uses a unique freezing method to temporarily block nerves from transmitting pain signals. The block typically lasts several months, during which time the nerve regenerates, giving the body time to heal. Because of the long-lasting nature of the therapy, physicians are adopting cryoNB as an adjunct to their pain management modalities, offering a unique solution for patients undergoing cardiothoracic surgery.

In the United States, a significant risk device requires the prior submission of an application for an Investigational Device Exemption (IDE) to FDA for approval before initiating a clinical trial. Clinical trials are required to support a pre-market approval (PMA) and are sometimes required for 510(k) clearance. Some trials require a feasibility study followed by a pivotal trial. An IDE supplement is a means of obtaining approval to initiate a pivotal trial following the conclusion of a feasibility trial. We are conducting several clinical trials to validate the long-term results of procedures using our products and to support applications to regulatory agencies for expanded indications. In addition, we also conduct various studies to gather clinical data regarding our products. Key trials and studies are:

CONVERGE. We are conducting the CONVERGE IDE clinical trial to evaluate the safety and efficacy of the EPi-Sense Guided Coagulation System with VisiTrax technology to treat symptomatic persistent Afib patients who are refractory or intolerant to at least one Class I and/or III anti-arrhythmic drug. The trial provides for enrollment of up to 153 patients at 27 domestic medical centers and three international medical centers. Enrollment began in 2014 and was completed in August 2018. The study protocol requires patient follow-up for twelve months post procedure for the primary effectiveness endpoint assessment and long-term follow-up through five years.

ATLAS. The ATLAS study is a non-IDE randomized pilot study evaluating outcomes of patients with risk factors for developing postoperative Afib as well as risk of bleeding on oral anticoagulation. There are two types of patients subject to this study: those with a postoperative Afib diagnosis and receiving prophylactic exclusion of the left atrial appendage with the AtriClip device concomitant to cardiac surgery and those with a postoperative Afib diagnosis who are medically managed. Enrollment began in February 2016 and ended in March 2018. We are analyzing preliminary data obtained from this trial.

FROST. We are conducting a cryo nerve block study, which is a non-IDE randomized pilot study evaluating intraoperative intercostal cryoanalgesia. The study involves treatment arm patients who receive intercostal cryoanalgesia in conjunction with standard post-operative pain management and control arm patients who receive standard post-operative pain management only. The study provides for enrollment of up to 100 patients at five medical centers. Enrollment began in June 2016 and remains ongoing.

DEEP AF Pivotal Study. The DEEP AF IDE pivotal trial evaluates the safety and efficacy of the Isolator Synergy System when used in a staged approach where a minimally invasive surgical ablation procedure is first performed and the patient undergoes the intracardiac catheter procedure approximately 90-120 days later. The trial was paused during 2016-2017 due to our work to mitigate the risk related to atrioesophageal injury during the procedure. We are committed to patient safety, and we worked collaboratively with FDA and obtained approval to resume enrollment in the trial in 2018. We currently have FDA approval to enroll 40 patients, and we plan to seek approval of additional patients pending FDA's review of additional safety data.

CEASE AF. We are also pursuing a non-IDE trial in Europe to compare staged hybrid ablation treatment (minimally invasive surgical ablation procedure is first performed and the patient undergoes the intracardiac catheter procedure approximately 91-180 days later) versus catheter ablation alone. We expect the study to have enrollment of approximately 210 patients at twelve sites. Enrollment began in November 2015 and remains ongoing.

ICE-AFIB. The ICE-AFIB clinical trial is designed to study the safety and efficacy of the cryoICE system for persistent and long-standing persistent Afib treatment during concomitant on-pump cardiac surgery. The trial provides for enrollment of up to 150 patients at up to 20 sites in the United States. Enrollment began in February 2019 and remains ongoing.

Results of Operations

Three months ended March 31, 2019 compared to three months ended March 31, 2018

The following table sets forth, for the periods indicated, our results of operations expressed as dollar amounts and as percentages of revenue:

	Three Months Ended March 31,			
	2019		2018	
	Amount	% of Revenues	Amount	% of Revenues
Revenue	$ 53,966	100.0 %	$ 46,994	100.0 %
Cost of revenue	14,095	26.1 %	12,491	26.6 %
Gross profit	39,871	73.9 %	34,503	73.4 %
Operating expenses:				
Research and development expenses	8,176	15.2 %	9,057	19.3 %
Selling, general and administrative expenses	37,015	68.6 %	34,876	74.2 %
Total operating expenses	45,191	83.7 %	43,933	93.5 %
Loss from operations	(5,320)	(9.9) %	(9,430)	(20.1) %
Other income (expense):				
Interest expense	(862)	(1.6) %	(820)	(1.7) %
Interest income	720	1.3 %	76	0.2 %
Other	(107)	(0.2) %	88	0.2 %
Total other expense	(249)	(0.5) %	(656)	(1.4) %
Loss before income tax expense	(5,569)	(10.3) %	(10,086)	(21.5) %
Income tax expense	66	0.1 %	48	0.1 %
Net loss	$ (5,635)	(10.4) %	$ (10,134)	(21.6) %

Revenue. Revenue increased 14.8% (16.0% on a constant currency basis). Revenue from customers in the United States increased $4,568, or 11.9%, and revenue from international customers increased $2,404, or 28.1% (34.4% on a constant currency basis). Sales in the United States grew across several key product categories. Ablation-related open-heart sales increased $1,417, or 8.1%, primarily due to volume growth in our existing cryo product line and the positive impact of the launch of the CryoSPHERE device. Appendage management sales increased $3,873 reflect the positive impact of the AtriClip FLEX-V LAA Exclusion System that launched in the first quarter of 2018 and volume growth of the AtriClip PRO-V LAA Exclusion System device. These increases were offset by a decrease in ablation-related minimally invasive (MIS) sales of $851. International revenue grew primarily in China, the United Kingdom, Germany and France, as a result of increased volumes across all key product categories.

Revenue reported on a constant currency basis is a non-GAAP measure and is calculated by applying previous period foreign currency (Euro) exchange rates, which are determined by the average daily Euro to Dollar exchange rate, to each of the comparable periods. Revenue is analyzed on a constant currency basis to better measure the comparability of results between periods. Because changes in foreign currency exchange rates have a non-operating impact on revenue, we believe that evaluating revenue growth on a constant currency basis provides additional and meaningful assessment of revenue to both management and our investors.

Cost of revenue and gross margin. Cost of revenue increased $1,604 and gross margin increased 0.5%. The overall increase in gross margin was driven primarily by improvements to operations and lower costs, partially offset by unfavorable geographic and product mix due to a higher concentration of sales in Asia and other distributor markets.

Research and development expenses. Research and development expenses decreased $881 due to $559 lower expense related to the timing of product development project activities and $693 reduction in clinical trial expense. These decreases were partially offset by $289 higher expense from increased headcount for product development, regulatory and clinical activities and a $142 increase in amortization expense, in addition to increases in various operating costs.

Selling, general and administrative expenses. Selling, general and administrative expenses increased $2,139, or 6.1% primarily due to $3,274 higher personnel and related expenses, such as travel costs, resulting from increased headcount; a $408 increase in share-based compensation expense; and $754 increase in various other operating costs, including software maintenance and professional services. These increases were partially offset by a $1,667 reduction in the contingent consideration liability (see Note 3 for further discussion) and $686 decrease in legal expenses.

Net interest expense. Net interest expense decreased $602 due to an increase of $644 in interest income from investments.

Liquidity and Capital Resources

As of March 31, 2019 the Company had cash, cash equivalents and investments of $100,630 and outstanding debt of $40,000. We had unused borrowing capacity of $20,000 under our revolving credit facility. Most of our operating cash and all cash equivalents and investments are held by United States financial institutions. We had net working capital of $119,554 and an accumulated deficit of $252,638 as of March 31, 2019.

Cash flows used in operating activities. Net cash used in operating activities was $13,438. The primary net uses of cash for operating activities were as follows:

- Net loss of $5,635, offset by $4,815 of non-cash expenses, including $4,154 of share-based compensation, $2,228 of depreciation and amortization, and $1,667 reduction in the contingent consideration liability; and

Net increase in cash used related to changes in operating assets and liabilities of $12,618, due primarily to the following:

- $8,214 due primarily to payment of variable compensation;
- an increase in inventories of $1,699, driven by increase in raw material and work-in-process inventory;
- an increase in other current assets of $1,023, due primarily to the timing of insurance premium and annual subscription payments; and
- an increase in accounts receivable of $1,547 due to revenue growth.

Cash flows provided by investing activities. Net cash provided by investing activities was $11,017 during the three months ended March 31, 2019. Cash from investing activities was primarily $15,665 of maturities of available-for-sale securities to fund operations. This source of cash was offset by $1,709 of purchases of property and equipment and $2,947 of purchases of available-for-sale securities.

Cash flows used in financing activities. Net cash used in financing activities during the three months ended March 31, 2019 was $8,970, which was primarily shares repurchased for payment of taxes on stock awards of $8,601, finance lease payments of $150, and payment of debt fees of $299 related to the December 28, 2018 amendment to our credit facility; partially offset by proceeds from stock option exercises of $80.

Credit facility. Our Loan and Security Agreement with Silicon Valley Bank (SVB), as amended, restated and modified effective February 23, 2018 and as further amended on December 28, 2018 (Loan Agreement), provides for a $40,000 term loan and a $20,000 revolving line of credit with an option to increase the revolving line of credit by up to an additional $20,000. The term loan and revolving credit facility both mature or expire, as applicable, in February 2023. According to the Loan Agreement, principal payments of the term loan are to be made ratably commencing eighteen months after the inception of the loan (September 2019) through the loan's maturity date. The term loan accrues interest at the greater of the Prime Rate plus 0.50%, or 5.00%. Borrowing availability under the revolving credit facility is based on the lesser of $20,000 or a borrowing base calculation as defined by the Loan Agreement. As of March 31, 2019 we had no borrowings under the revolving credit facility, and we had borrowing availability of $20,000. The Loan Agreement also provides for certain prepayment and early termination fees only if the term loan is repaid before January 2020 and establishes a minimum liquidity ratio, along with other customary terms and conditions. Specified assets have been pledged as collateral.

In connection with the terms of our corporate headquarters lease agreement, a letter of credit in the amount of $1,250 was issued to the landlord in October 2015. The letter of credit is renewed annually and remains outstanding as of March 31, 2019.

Uses of liquidity and capital resources. Our future capital requirements depend on a number of factors, including market acceptance of our current and future products; the resources we devote to developing and supporting our products; future expenses to expand and support our sales and marketing efforts; costs relating to changes in regulatory policies or laws that affect our operations and cost of filings; costs associated with clinical trials and securing regulatory approval for new products; costs associated with acquiring and integrating businesses; costs associated with prosecuting, defending and enforcing our intellectual property rights; and possible acquisitions and joint ventures. Global economic turmoil may adversely impact our revenue, access to the capital markets or future demand for our products.

We have on file with the SEC a shelf registration statement which allows us to sell any combination of senior or subordinated debt securities, common stock, preferred stock, warrants, depository shares and units in one or more offerings should we choose to do so in the future. We expect to maintain the effectiveness of this shelf registration statement for the foreseeable future.

We believe that our current cash, cash equivalents and investments, along with the cash we expect to generate or use for operations or access via our revolving line of credit, will be sufficient to meet our anticipated cash needs for working capital and

capital expenditures for at least the next twelve months. The nContact transaction provides for contingent consideration to be paid upon attaining specified regulatory approvals and revenue milestones over the next two years. Subject to the terms and conditions of the nContact merger agreement, such contingent consideration will be paid in AtriCure common stock and cash, with a requirement to make payments in AtriCure common stock first, up to a specified maximum number of shares. Over the next twelve months, we do not expect our cash requirements to include significant payments of contingent consideration based on terms of the acquisition agreement and related milestones. See the heading "Legal" in Note 8 for a description of an earnout objection statement received from the nContact shareholder representative.

If our sources of cash are insufficient to satisfy our liquidity requirements, we may seek to sell additional equity or debt securities or obtain a revised or additional credit facility. The sale of additional equity or convertible debt securities could result in dilution to our stockholders. If additional funds are raised through the issuance of debt securities, these securities could have rights senior to those associated with our common stock and could contain covenants that would restrict our operations. Finally, our term loan agreement and revolving line of credit require compliance with certain financial and other covenants. If we are unable to maintain these financing arrangements, we may be required to reduce the scope of our planned research and development, clinical activities and selling, training, education and marketing efforts.

Seasonality

During the third quarter, we typically experience a moderate decline in revenue that we attribute primarily to the elective nature of certain procedures in which our products are used. We believe this is due to fewer people choosing to undergo elective procedures during the summer months.

Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations is based upon our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP). The preparation of financial statements requires management to make estimates and judgments that affect the reported amounts of assets and liabilities, revenue and expenses and disclosures of contingent assets and liabilities at the date of the financial statements. On a periodic basis, we evaluate our estimates, including those related to sales returns and allowances, accounts receivable, inventories, intangible assets including goodwill, contingent liabilities and share-based compensation. We use authoritative pronouncements, historical experience and other assumptions as the basis for making estimates. Actual results could differ from those estimates under different assumptions or conditions. Our Annual Report on Form 10-K for the fiscal year ended December 31, 2018 includes additional information about the Company, our operations, our financial position and our critical accounting policies and estimates and should be read in conjunction with this Quarterly Report on Form 10-Q.

Recent Accounting Pronouncements

See Note 2 in the Notes to the Condensed Consolidated Financial Statements for a discussion of recent accounting pronouncements.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

As of March 31, 2019 there were no material changes to the information provided under Item 7A, "Quantitative and Qualitative Disclosures About Market Risk" in the Company's Form 10-K for the year ended December 31, 2018.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

The Company's management, with the participation of the President and Chief Executive Officer (the Principal Executive Officer) and Senior Vice President and Chief Financial Officer (the Principal Accounting and Financial Officer), has evaluated the effectiveness of the Company's disclosure controls and procedures, as defined in Rules 13(a)-15(e) and 15(d) -15(e) of the Securities Exchange Act of 1934 (Exchange Act), as of the end of the period covered by this report. Based on this evaluation, we concluded that, as of the end of the period covered by this report, our disclosure controls and procedures were effective in providing reasonable assurance that information required to be disclosed by us in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's forms and rules, and the material information relating to the Company is accumulated and communicated to management, including the President and Chief Executive Officer and the Senior Vice President and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosures.

Control systems, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that control objectives are met. Because of inherent limitations in all control systems, no evaluation of controls can provide assurance that all

control issues and instances of fraud, if any, within a company will be detected. Additionally, controls can be circumvented by individuals, by collusion of two or more people or by management override. Over time, controls can become inadequate because of changes in conditions or the degree of compliance may deteriorate. Further, the design of any system of controls is based in part upon assumptions about the likelihood of future events. There can be no assurance that any design will succeed in achieving its stated goals under all future conditions. Because of the inherent limitations in any cost-effective control system, misstatements due to errors or fraud may occur and not be detected.

Changes in Internal Control Over Financial Reporting

In the ordinary course of business, we routinely enhance our information systems by either upgrading current systems or implementing new ones. There were no changes in our internal control over financial reporting that occurred during the three months ended March 31, 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

Information with respect to legal proceedings can be found under the heading “Legal” in Note 8 – Commitments and Contingencies to the Condensed Consolidated Financial Statements in Part I, Item 1 of this Quarterly Report on Form 10-Q, and is incorporated herein by reference.

Item 1A. Risk Factors

In addition to the other information set forth in this report, careful consideration should be given to the factors discussed in Item 1A, “Risk Factors” in our Form 10-K for the year ended December 31, 2018, all of which could materially affect our business, financial condition or future results. The risks described herein and therein are not the only risks facing us. Additional risks and uncertainties not currently known to us, or that we currently deem to be immaterial, also may adversely affect our business, financial condition and/or operating results. There have been no material changes with respect to the risk factors disclosed in our Annual Report on Form 10-K for the year ended December 31, 2018.

Item 6. Exhibits

Exhibit No.	Description
31.1	Rule 13a-14(a) Certification of Principal Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Rule 13a-14(a) Certification of Principal Accounting and Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1	Certification pursuant to 18 U.S.C. Section 1350 by the Principal Executive Officer, as adopted, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2	Certification pursuant to 18 U.S.C. Section 1350 by the Principal Accounting and Financial Officer, as adopted, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

AtriCure, Inc.
(REGISTRANT)

Date: April 26, 2019

/s/ Michael H. Carrel

Michael H. Carrel
President and Chief Executive Officer
(Principal Executive Officer)

Date: April 26, 2019

/s/ M. Andrew Wade

M. Andrew Wade
Senior Vice President and Chief Financial Officer
(Principal Accounting and Financial Officer)

Exhibit 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO
SECTION 13(a) OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Michael H. Carrel, certify that:

1. I have reviewed this quarterly report on Form 10-Q of AtriCure, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: April 26, 2019

By: /s/ Michael H. Carrel
Michael H. Carrel
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF PRINCIPAL ACCOUNTING AND FINANCIAL OFFICER
PURSUANT TO
SECTION 13(a) OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, M. Andrew Wade, certify that:

1. I have reviewed this quarterly report on Form 10-Q of AtriCure, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: April 26, 2019

By: /s/ M. Andrew Wade
M. Andrew Wade
Senior Vice President and Chief Financial Officer
(Principal Accounting and Financial Officer)

Exhibit 32.1

**CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the quarterly report of AtriCure, Inc. (Company) on Form 10-Q for the quarter ended March 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (Report), I, Michael H. Carrel, President and Chief Executive Officer and Principal Executive Officer of the Company, certify, pursuant to Rule 13a–14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: April 26, 2019

By: /s/ Michael H. Carrel
Michael H. Carrel
President and Chief Executive Officer
(Principal Executive Officer)

A signed original of this written statement or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement has been provided to AtriCure, Inc. and will be retained by AtriCure, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

The foregoing certification is being furnished solely pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code) and is not being filed as part of the report or as a separate disclosure document.

Exhibit 32.2

**CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the quarterly report of AtriCure, Inc. (Company) on Form 10-Q for the quarter ended March 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (Report), I, M. Andrew Wade, Vice President and Chief Financial Officer and Principal Accounting and Financial Officer of the Company, certify, pursuant to Rule 13a–14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: April 26, 2019

By: /s/ M. Andrew Wade
M. Andrew Wade
Senior Vice President and Chief Financial Officer
(Principal Accounting and Financial Officer)

A signed original of this written statement or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement has been provided to AtriCure, Inc. and will be retained by AtriCure, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

The foregoing certification is being furnished solely pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code) and is not being filed as part of the report or as a separate disclosure document.