



**What matters
in a cardiac
monitoring service**

About Cardiac Monitoring Service

Cardiac Monitoring Service's team meets the highest compliance and analytical standards, while delivering the latest heart monitoring software and devices.

Over 30 years of
reputable and trusted
cardiac monitoring

500k hearts analyzed
and reported on each
year

Trusted by medical
experts in 10 countries
worldwide

How to choose an outsourced cardiac monitoring service

With demand for cardiac monitoring services continuing to rise along with an aging population, more and more health systems are forced to find efficiencies to keep up.

Outsourced cardiac monitoring services can provide strained clinical services with much-needed specialized resources, while helping improve the bottom line.

Unlimited access to the latest cardiac monitoring technology enables clinics to deliver leading care standards – while some services also provide devices and reporting software with no upfront costs.

No sunk capital expenditure into a device fleet makes even more sense as the device race continues to gain velocity with developers pushing for even better solutions to meet growing demand.

The challenge for US clinics, with so much at stake for patients, is finding a cardiac monitoring service that goes beyond cost-effective technology, to deliver a service and clinical results that they can truly rely on.

Operating in 10 countries globally and overseeing 500K+ heart studies annually, we surveyed clinics worldwide to better understand what they needed from a cardiac monitoring service. Despite the differing health systems, regulatory standards and various levels of public and private care for patients, in all 10 countries of operation, responses were consistent.

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In order of importance, the main concerns when assessing cardiac monitoring services included:

This white paper explores these topics in detail and looks at how clinics establish trust in a service, as well as the impacts various aspects of an outsourced cardiac monitoring service can have on clinics and patient outcomes.

1

Device performance

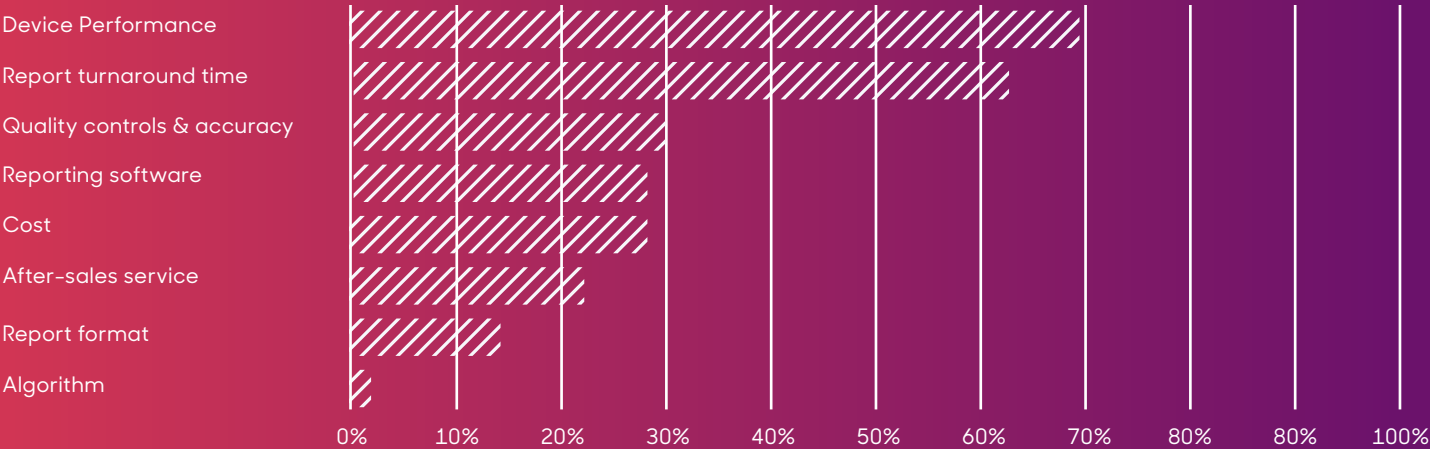
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Turnaround time

3

Data accuracy

What matters most in a cardiac monitoring service



* Respondents were asked to select their top 3 choices

Device performance

Device performance was listed as the number #1 consideration when choosing a cardiac monitoring service

Technology was a major consideration with the device recording clarity, data accuracy, diagnostic yield and patient comfort and compliance all considered crucial components.

Recording clarity

Artifact can obfuscate the findings of a heart study – so a device that records clearly provides for greater certainty in heart studies.

The development of patch Holters has significantly improved the challenges of traditional wired devices, with electrodes now embedded in the patch and less likely to create artifact. Options for multi-channel devices further improves accuracy, with patch Holter devices now able to record up to 3-channels. Each channel supports the accuracy of the others and helps form a more complete picture, including V-5 position, to avoid misdiagnosis.

Data accuracy

Trace quality is often a discussion from device-focused companies, and while remaining important, doesn't provide a full picture when assessing the performance of an outsourced cardiac monitoring service. Repeat rates and error rates will provide a much clearer indication of the quality of the service. If a company cannot provide regular, transparent reporting on its clinical performance, it could prove difficult to know whether you are getting accurate and reliable results for your patients.

Cardiac Monitoring Service is among the only providers that publishes monthly performance reports – with targets set to exceed industry standards, and results that consistently outperform our own stringent standards. We deliver <0.02% error rate and 3% repeat rate on average to our global markets and publish results monthly. Insisting on clear Service Level Agreements and regular service updates will ensure your outsourced cardiac monitoring service remains accountable and provides you with assurance you're offering the best care for your patients.

Data yield

Advancements in Holter technologies mean patients can now wear devices for up to 14 days, without limits or restrictions on daily activities, including showering. Due to the intermittent nature of arrhythmia, multiday analysis is preferable as it allows for more comprehensive heart studies to be completed. Mounting evidence globally confirms the value of multiday analysis, with our own global data indicating 55% of significant findings have been beyond the traditional 24hr testing window.

Comfort and compliance

The ability for patients to tolerate the device for the full study length can impact results. Patients universally appear to prefer patch devices, with preferences ranging between 85% and 96%. As such, comfort remains important when assessing device performance. The more comfortable a device is, the more likely it is that a patient will be able to wear it without disruption. Devices that allow patients to continue with their daily activities, including showering and exercising ensures a more comprehensive heart study.

**95% of
respondents**

**said a device-agnostic
approach gave them greater
confidence that they are
providing the best available
care to patients**

Advancing technology

Services with a device-agnostic approach provide clinics with the highest level of confidence. Constantly advancing Holter technology makes avoiding being locked into a service's own device is best.

Device-agnostic companies typically research the latest Holter devices without a vested interest in the solution. Instead, their focus remains on bringing the best solutions to clinics and recommending technology that deliver superior clinical results.



Report quality

96% of respondents deemed report turnaround time as crucial in providing a high quality of care to patients, with 80% giving it the highest rating of very important.

Report format

A cardiac monitoring service should be able to provide a comprehensive cardiac analysis report, including a clear summary page with conclusions. The summary should clearly set out inclusions such as maximum and minimum heart rate; VE/SVE ectopy burdens including couplets, runs and bigeminy/trigeminy' pauses; AF burdens; and patient demographics and test details including duration.

You would also expect a comprehensive report to include heart rate trend with hourly break down, AF events page and relevant ECG strips for significant events. Some services can provide a consolidated multiday report, with the flexibility to break down 24hr timeframes, as well as other content upon request, such as further strips. You can simply request a sample report to assess the service's report format.

Turnaround time

It's important to understand the methods that different outsourced cardiac monitoring services use, and the way this can affect turnaround times. With most services now using digital data transfer, time delays previously associated with phone paper-based systems have been largely overcome, however, the time it takes for a service to receive cardiac data and then generate a cardiac report can vary significantly.

The sophistication of the reporting software will chiefly influence the ability of a cardiac monitoring service to turnaround reports quickly. Platforms with live cardiac data, mobile capabilities, instant SMS on critical cases, in-report messaging functions and data automation have changed what was possible in cardiac reporting, with services like Cardiac Monitoring Service able to deliver 24hr test results.

Another important consideration is the size of the cardiac monitoring service you're choosing. A major factor in heart study delays comes down to the size of the cardiac team available to hospitals and clinics – with many healthcare institutions finding themselves understaffed. Selecting a cardiac monitoring service that has a sizeable team available to them allows for your patient numbers to scale alongside their team, without delays being caused by an increasing number of tests being performed.

Turnaround should also be outlined in Service Level Agreements and performance reports provided. For example, Cardiac Monitoring Service continues to deliver more than 99.98%+ average on-time reporting – with global performance published monthly. Service methods also affect time and need consideration. For example, some services will exclusively rely on mail out services, which depend on patients to complete tests and return devices. If there is a delay, then lag times will slow cardiac analysis.

Open, responsive communication

97% of survey respondents rated communication with the cardiac monitoring team as an important

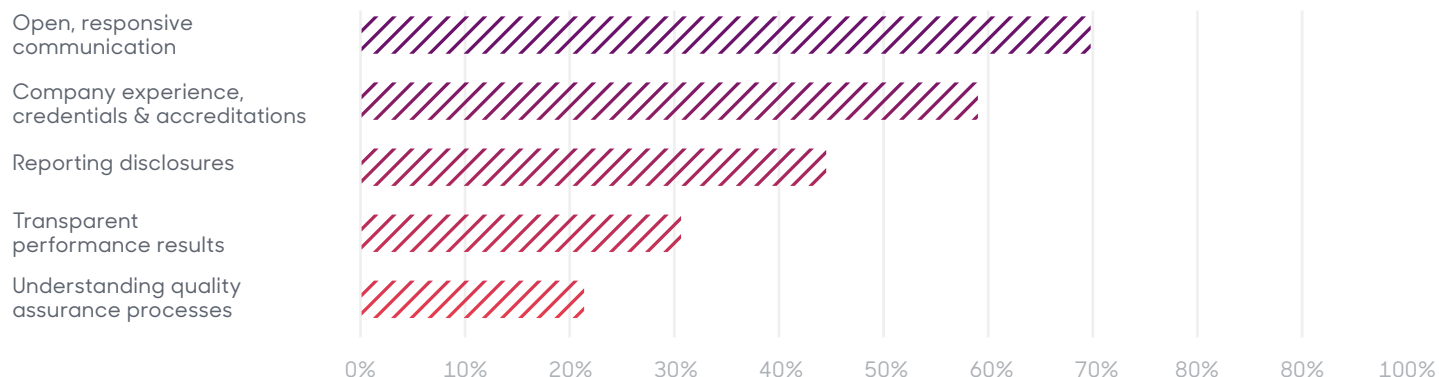
aspect of successfully working with a cardiac monitoring service – with 76% of respondents giving it the highest rating of very important.

As an extension of your clinical team, you'll need your service to be readily available to query clinical results and provide instant alerts in the case of critical data. Digital communication and alerts becoming increasingly ubiquitous, which has improved all services. However, some offer cardiac reporting platforms provide direct contact to the clinical team – and audit trails for complete, transparent record keeping. A platform that enables faster, clearer communication is even more critical for larger clinics and multi-site facilities, which need to be able to communicate quickly with staff across multiples sites.

Your outsourced cardiac monitoring service should also have an established support team for all clinical queries/issues, as well as back-up methods. For example, outside working hours there should be someone available in case of clinical emergencies, so if something goes wrong, there is a line of communication available.

Proactive communication is also important. Globally, clinics want to be able to trust their cardiac monitoring service will contact them in the case of technical issues or anything else that affects report turnaround time, or the quality of report received.

What helps build trust in the accuracy of results



* Respondents were asked to select their top 3 choices

Cost

Cost is an important consideration for clinics choosing an outsourced cardiac monitoring service

Once clinics have assessed other factors of a cardiac monitoring service such as service and device performance, cost becomes a factor in decision-making. One of the restrictive factors of having an in-house cardiac monitoring team is the capital expenditure on technology and software, which may be provided by some cardiac monitoring services free of charge.

The ability to scale patient numbers alongside your cardiac monitoring service, without having to continue to pay for more devices and additional software licenses makes outsourcing an appealing decision both from a performance perspective and a cost perspective. A fee per test structure means that clinics are only paying for the service when they are using it, rather than passively spending money – removing significant roadblocks when attempting to progress patient waitlists.

Company experience, credentials & accountability

Knowing a team's experience and credentials was among the top 3 considerations for clinics choosing an outsourced cardiac monitoring service

Company credentials and clinical experience all improve confidence in outsourcing.

While all outsourced services will meet regulatory standards, each service brings various experience, knowledge and quality measures. Excellence in clinical standards requires strong medical leadership, with robust Quality Assurance policies and procedures, as well as ongoing training programs to keep team credentials up-to-date. Services should be able to provide these readily, along with KPIs on performance measures.

Data security

It's also important to understand how the outsourced cardiac monitoring service will protect your data. At-rest and in-transit data encryption, independent penetration testing, annual security auditing (both internally and externally) and multi-factor authentication systems are among the types of security measures you'd expect to see. Requesting a full security policy disclosure will help your IT department have certainty that your data is being stored and managed appropriately.

A good cardiac monitoring service also should have the ability to retain or destroy data as per your Service Level Agreement, based on your specific needs.

Conclusion

As clinics continue to face increasing resource constraints, cardiac monitoring services can reduce the strain of expenditure and allow clinics to focus on delivering the best service to their patients.

Cardiac monitoring services need to be able to build trust and meet clinic needs – where device performance is only one part of the picture in better outcomes for patients. Report turnaround time, open, responsive communication between all parties and company qualifications all create a sense of trust in physicians. Turning to those with years of experience in cardiac monitoring and analysis provides clinics even greater certainty they are delivering the best possible treatment and care to patient.





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Cardiac Monitoring Service was established 30+ years ago and has grown under our parent company CardioScan to one of the largest services of its kind globally, overseeing more than 500k+ heart studies annually – operating in 10 countries including UK, US, Australia, Hong Kong, Malaysia and Singapore, among others.

Visit us online!

