QuestQuanum™

5 Trends
in Lab Utilization

Introduction

With thousands of tests available today, laboratory testing is healthcare's single-highest volume medical activity.[1] Appropriate test utilization is a growing challenge: While a percentage of tests may be unnecessary, it's estimated that roughly a third of tests considered necessary are not ordered.[1,2]

Either scenario contributes to suboptimal care as well as potential harm to patients and wasteful healthcare spending. Increasingly, healthcare providers are focusing more on proper test utilization as a strategy for closing gaps in care and cutting waste out of the system.

Here are five ways they're doing it:

1

Lab formularies

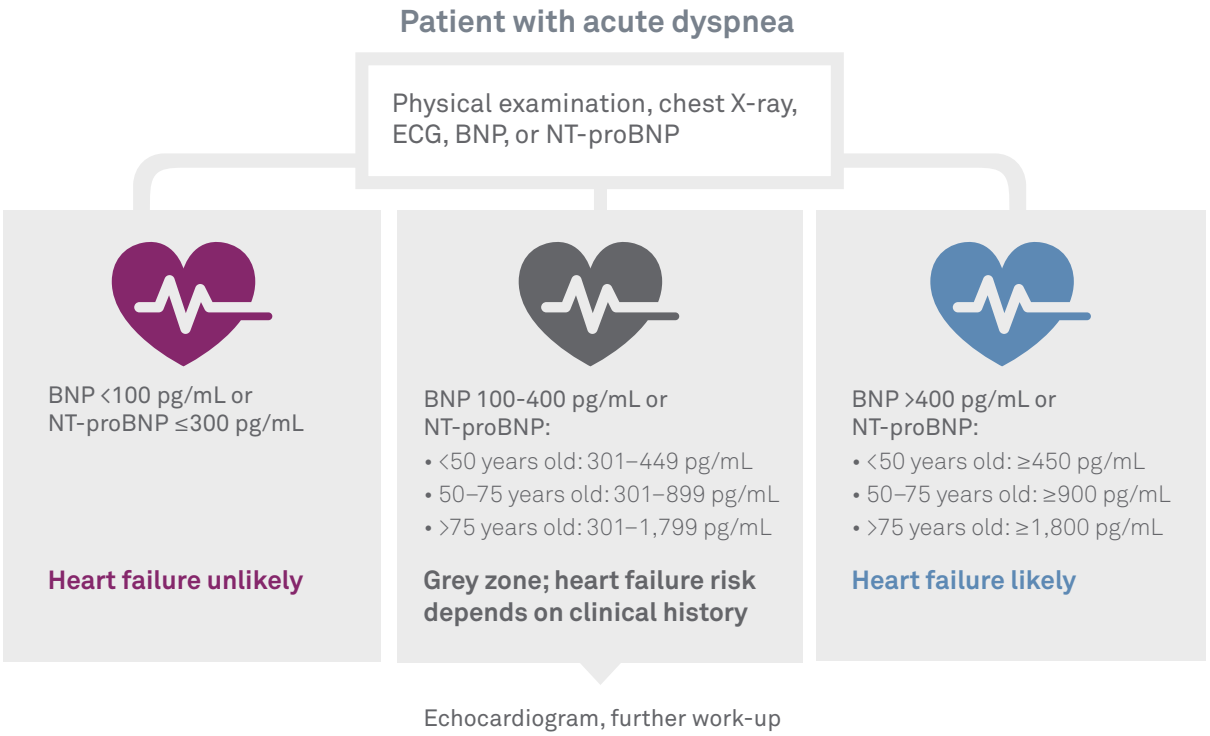
Similar in concept to drug formularies, a lab formulary is a list of send-out tests that can be ordered by clinicians. The formulary describes where the tests will be sent, who can order them, and under what conditions. The formulary may have a tiered approach, i.e., one tier is available to all clinicians, a second tier is available to subspecialists, and a third tier requires committee review or approval. The formulary's focus may be to limit mis-ordering of expensive molecular, genomic, and other esoteric tests. But it can also limit suboptimal use of diagnostics, e.g., ordering an older test when a newer, better version is available.

The lab formulary is a relatively new concept, but laboratories are beginning to implement them, notes the American Association of Clinical Chemistry (AACC). In an article on its website, the AACC advises that a good starting point requires collaboration among ordering clinicians, hospital lab professionals, clinically engaged pathologists, and the lab director.[3]

2

Clinical testing algorithms

Clinical testing algorithms (or "decision trees") are similar to medical algorithms but focus on testing. They can help inform the clinician of which tests to order when and why, and for whom. Developed collaboratively between medical specialists and pathologists—or genetic counselors in the case of genetic testing—clinical testing algorithms can help target expensive send-out tests, prevent the mis-ordering of easily confused tests (see below) or, in the case of genetic testing, prevent duplicate orders of germline tests, which can be costly. Algorithms can also minimize the mis-ordering of unnecessary lab tests.



Summary of the Use of BNP and NT-proBNP for Diagnosing Heart Failure in Patients with Acute Dyspnea*
This testing algorithm shows that BNP and NT-proBNP biomarker tests are interchangeable in diagnosing heart failure in patients with acute dyspnea, allowing use of the less costly option.

* This figure was developed by Quest Diagnostics based on references 2-7. It is provided for informational purposes only and is not intended as medical advice. A physician's test selection and interpretation, diagnosis, and patient management decisions should be based on his/her education, clinical expertise, and assessment of the patient.

3

CPOE electronic reminders: soft and hard stops

One of the primary strategies used to prevent mis-ordering, computerized physician order entry (CPOE) and electronic health record reminders can be put in place to flag possible mis-ordered tests at order entry, as well as provide guideline-based test recommendations or substitutions. Also used to prevent prescribing errors, these reminders are sometimes called soft and hard stops—soft stops flag possible mis-orders and hard stops may actually block orders. In some cases, these stops can act as electronic gatekeepers by, for example, requiring prerequisite test results or other prequalifying information to be submitted when ordering certain tests.

4

Targeting "look-alike" tests

Another strategy to prevent mis-orders, undertaken either on its own or with any of the strategies above, is to educate clinicians on similarly named tests that can be easily confused. Examples include vitamin D testing (1,25-dihydroxyvitamin D versus 25-hydroxyvitamin D), manganese versus magnesium, and cyclosporine versus cycloserine. In addition to clinician education, other methods to prevent mistakenly ordering sound-alike tests can include pop-up boxes and typographic changes to the order names in CPOE.[4]

5

Utilization report cards

Lab utilization report cards can provide comparative feedback to clinicians relative to their peers and testing guidelines. Depending on the analytics tool used, utilization report cards can be sorted by organization all the way down to individual clinicians. They can provide clear and actionable insight and direction on patterns of unnecessary testing so they may be addressed.

Better lab utilization benefits everyone

Lab utilization is only a fraction (~3-5%) of healthcare costs but affects nearly every aspect of care. Reducing the mis-ordering of tests—either over- or under-utilization—can benefit everyone, starting with the patient, who receives better care. Clinicians receive better diagnostic insight to inform their decision making. Hospitals, health systems, and health plans see improved outcomes while spending more wisely. Greater value is realized on all fronts—and as healthcare shifts from fee-for-service to fee-for-value, it's imperative to take action now to make optimal use of the tremendous resource that is clinical lab testing.

Want to get a better handle on **costly test mis-orders?**
Quest Diagnostics offers Quanum Lab Utilization, part of its Quanum portfolio of technology solutions for healthcare.

For more information

Speak to your Quest Diagnostics sales representative or learn more about **Quanum Lab Utilization** at QuestDiagnostics.com/LabUtilization.

References

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4. Olson J, Castellani W. Soundalike test names create confusion. *Arch Pathol Lab Med*. 2013 Mar;137(3):307.
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