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Expanding access to noninvasive prenatal testing in Abu Dhabi

A new white paper examines the barriers to adopting the test in Abu Dhabi—and how to ensure all patients may gain access to it

HOW DO CLINICIANS, and ultimately patients, gain access to new technologies? For Nordin Charafi, who directs market access for Illumina's Asia, Middle East & Africa region, the process is complex, requiring consistent communication—with governments, clinicians, insurance companies—and a lot of data.

Recently, his team has been focused on expanding noninvasive prenatal testing (NIPT) in the United Arab Emirates (UAE) with a focus on Abu Dhabi. NIPT tests use next-generation sequencing to analyze cell-free DNA from a maternal blood sample and screen for some common chromosomal conditions, potentially preventing the need for more invasive procedures.

To gather data for UAE officials, Illumina commissioned a white paper titled “The Landscape of NIPT in Abu Dhabi.”¹ Developed through a collaboration with IQVIA,² a leading global provider of clinical research services, commercial insights, and health care intelligence to the life sciences and health care industries, the research-driven paper highlights global adoption trends and

outlines key benefits for prenatal screening in the region. IQVIA collaborated with leading prenatal experts to produce the white paper, which supports innovation in maternal health.

“It’s a two-step process,” Charafi says. “The white paper is part of our ongoing research to understand the hurdles that may prevent clinicians from offering NIPT to their patients.” If the research demonstrates a clinical benefit to a particular technology, the next step is getting coverage for patients.

Barriers to access

The UAE is made up of seven emirates, and Abu Dhabi is both an emirate and the capital city. In many ways, the city is a microcosm of the UAE, and the UAE is adopting genomics faster than other countries in the region.

There is an emerging recognition in the UAE that genetic testing can be quite valuable. In 2024, the Dubai Health Authority recommended NIPT be used for the screening of common chromosomal variations in all

1. iqvia.com/locations/middle-east-and-africa/library/white-papers/the-landscape-of-nipt-in-abu-dhabi

2. iqvia.com

3. isahd.ae/content/docs/Ejada%20KPIs%20and%20Recommendations_Maternal%20Care_2024.pdf

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pregnancies regardless of age or risk factors,³ and the Department of Health in Abu Dhabi is likely the next to do so. It plays a leading role in shaping health care policy across the UAE, making its initiatives highly influential beyond the emirate itself. The department currently recommends NIPT for high-risk pregnancies, such as in women over the age of 35 or those with a relevant family history. In addition, as of October 2024, Abu Dhabi has mandated genetic testing as part of premarital screening for Emirati couples, aiming to give them more information to better understand the health risks for their future children.⁴ The government is also funding preimplantation genetic testing for in vitro fertilization, making it a covered benefit for eligible patients.

But while NIPT is being used sporadically in Abu Dhabi, the white paper underlines several barriers to the technology, including insurance coverage, limited awareness, and cultural factors.

“It’s important to reassure families that our goal is to provide them the information they need to get the best care possible,” Charafi says. “We want to help people understand that when genetic risks aren’t identified early, it can lead to serious health complications for both the baby and sometimes the mother—often requiring intensive care, which can be emotionally and financially overwhelming. But with early knowledge, families can plan ahead, choose the safest delivery setting, and potentially avoid those high-risk situations.”

The white paper also showed that there is limited awareness about the procedure among clinicians. Many

rely on older technologies, such as ultrasound and traditional blood tests, and that has also slowed patient access.

On a payer level, the UAE is complicated. Around 10% of the population is native Emirati and receive full government health benefits. The rest are non-UAE nationals working in the region, who rely on private health insurance, usually through their employers. While an increasing number of obstetricians recommend NIPT, current policies force many non-UAE nationals, particularly those younger than 35, to pay the costs of NIPT out of pocket, putting the test out of reach for a significant part of the population. Charafi and his team work with both the government and private payers to expand insurance coverage.

Next steps

The paper laid out several steps the team can take to increase access, with a focus on Abu Dhabi, including educating clinicians, encouraging insurance reforms, and establishing prenatal care clinics to centralize expertise and generate more data on NIPT’s effectiveness.

The access team is taking a stepwise approach to improving NIPT access in different regions. When one nation or state embraces the test, it becomes a data point to help others move forward.

“After Abu Dhabi, our next step would be to get NIPT covered across the UAE,” Charafi says. “Then, hopefully, it’s going to have a ripple effect across the entire Asia, Middle East & Africa region.” ♦

4. doh.gov.ae/en/news/doh-integrates-genetic-testing-as-an-integral-component-of-the-premarital-screening-programme

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