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PRECISE, ACCURATE, AND RELIABLE PULMONARY FUNCTIONAL TESTING WITH KOKO[®] SPIROMETERS

KoKo[®] Spirometers with Brass-core Fleisch pneumotachs from nSpire Health provide repeatable and reliable assessment of pulmonary function with a simplified automated workflow. Fully compliant with FDA 21 CFR Part 11 and exceeding ATC/ERS standards¹, KoKo Spirometers measure key respiratory indicators with greater than 1% accuracy. Their superior design ensures consistent, accurate, and precise data for patient diagnosis and audit trail requirements.

Melanie Gleason, a physician assistant at National Jewish Health in Denver and Project Manager for the Step-Up Asthma Program, an asthma education and care coordination program for Denver Public Schools, referred to the overall quality of the Koko Spirometer as its best feature. For the past 6 years, her program has used the instrument to perform spirometry on over 200 children a year. Reports are interpreted by medical staff and provided to participants and their health care providers.

The KoKo Software included with KoKo Spirometers provides an intuitive interface for performing pre- and post-bronchodilator assessment of forced volume vital capacity (FVC), maximum

voluntary ventilation (MVV), slow vital capacity (SVC), and challenge tests. Over 30 pre-defined reports that cover the most common data views are included, and more specialized reports can easily be generated with the report designer. Once testing is complete, reports produced in PDF format can easily be retrieved and transferred via the USB interface which enables integration of the Spirometer with an EMR system.

KoKo Spirometers are also the first commercial spirometers to incorporate the Global Lung Initiative (GLI) datasets². While standards from other earlier datasets, such as Hankinson³ and Knudson⁴, are also included in the software and can be used as comparisons for patient results, these older datasets are smaller and more biased toward specific sub-populations. In addition, much of the data collected for these previous standards was obtained from older less accurate instruments that did not provide the level of precision available with current technology.

Prediction equations derived from the newer GLI collated lung function data provide the most comprehensive estimate of normal values adjusted

for ethnicity, age, weight, height, and sex to enable more accurate assessment a patient's variance. In addition, KoKo Spirometers are one of the few pulmonary measurement systems that includes a preconfigured mannitol challenge test⁵.

A range of KoKo Spirometer Systems have been designed by nSpire to fit various clinical and private practices. The standard KoKo Spirometer can be easily installed as an accessory on any typical computer or laptop running a Windows 7 or 8 operating system. The KoKo Trek system provides a more economical option with simplified software but having with the same high quality Spirometer unit as the standard system.

For standalone spirometers, there is the KoKo Legend which provides a full-color touchscreen computer interface containing an optional printer or WiFi interface. As leader of the Step-Up outreach program, Melanie Gleason especially valued the "user-friendly and portable" features of the self-contained KoKo Legend instruments used in their program.

Denver Public School's Step-Up Asthma Program coordinated by National Jewish Health selected KoKo Spirometers as their instrument of choice. Melanie Gleason, the program's Project Manager, commented on the overall quality of the KoKo Spirometer and especially values its "user-friendly and portable" features.

The KoKo Digidoser rounds out nSpire's pulmonary function testing line by adding an accurate and precise aerosol dosing function to the standard spirometer unit. The Digidoser provides all the same capabilities as the standard KoKo Spirometer but also delivers a controlled nebulized dose of medicine for challenge testing. The Digidoser's integration with the KoKo software enables

automatic and seamless control of discharges of defined aerosol volumes at desired inhalation intervals producing standardized conditions for challenge testing.

KoKo Spirometers incorporate the latest advances in respiratory science, such as the GLI standards and the latest testing protocols. As a result, these state-of-the-art instruments provide precise, accurate, and reproducible measurements to assess pulmonary functional and enable KoKo Spirometers to remain the number one choice for pulmonary functional testing. ♦

For more information on KoKo Spirometers, contact nSpire Health, Inc. by calling 303-666-5555 or visiting online at www.nspirehealth.com.



References:

1. Miller, et al. (2005) Eur Respir J. 26: 319-338.
2. Quanjer, et al. (2012) Eur Respir J. 40: 1324-43.
3. Hankinson, et al. (1999) Am J Resp Crit Care. 159: 179-187
4. Knudson, et al. (1983) Am Rev Respir Dis. 127: 725-734.
5. Anderson, et al. (2009) Respir Res. 10: 4.