

VeriLinkRx

TPN AND DRUG DIVERSION SYSTEM

Close the broken link in your
narcotics chain of custody program

Validate Fentanyl with VeriLinkRx



VeriLinkRx			
RUDOLPH RESEARCH ANALYTICAL		Wednesday, 02/18/2016 14:17:56	
Result			
Drug ID	: Fentanyl	Operator	: Tom
Concentration	: 50 ug/ml	CRN	: Nancy
Manufacturer	: Hospira	Patient	: 012345
LIN : 1 02/18/2016 14:17:56			
Reference Average	: 1.3330		
Measurement Result	: 1.3330		
Difference between Measurement and Reference	: 0.0000		
Result	PASS		
OK			

**RUDOLPH
RESEARCH
ANALYTICAL**

TECHNICAL BULLETIN 943

Do you know what is in your syringe?

- Diversion is a problem, because 15% of healthcare professionals struggle with drug dependence at some point in their career contributing to the drug diversion problem.
- Testing narcotics returned to the hospital pharmacy with the **VeriLinkRx** alerts staff to tampered or sub-therapeutic dosage levels.
- The **VeriLinkRx** can be used to test Morphine, Hydromorphone, Oxycodone, Fentanyl, and other narcotics.
- Standard existing chain of custody control measures like biometric scanning, audit trails, passwords, and witness documentation are not sufficient to ensure that narcotics are returned to the hospital pharmacy untampered and undiluted.
- An analytical method, like Rudolph's **VeriLinkRx**, is a reliable and cost effective solution to verify that the actual narcotic is returned to the hospital pharmacy.
- Outsourced laboratory testing is too slow and expensive to test returned narcotics that are administered daily.

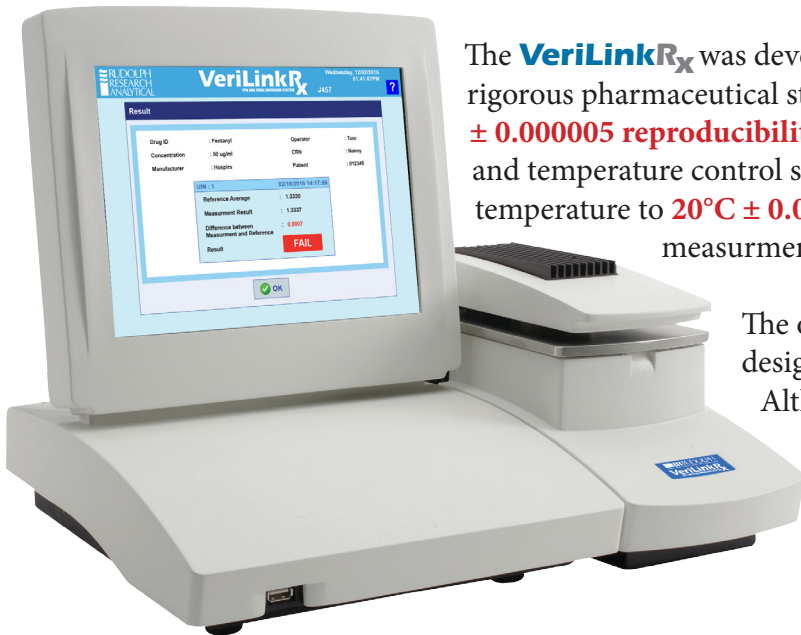
The **VeriLinkRx** is easily integrated into your hospital pharmacy workflow.

- Testing returned Narcotics with **VeriLinkRx** takes just seconds.
- Hospital pharmacists can integrate the **VeriLinkRx** into their work flow by adding an audit or spot check routine.
- Audits can be done for individual staff, shifts or departments: returning narcotics can be routinely or randomly tested and deviations noted.
- Inspection of historical **VeriLinkRx** data can show patterns requiring investigation or further action.
- Further action can include:
 - 1.) Investigation of suspect samples.
 - 2.) Third party testing.
 - 3.) Urine testing for individual staff, shifts, or departments.



Why \$200 - \$1,000 hand held refractometers don't work?

Hand held refractometers are performance limited because their inexpensive components drift and fluctuate with temperature and sample conditions. Hand held refractometers work fine to differentiate between a 10° and 11° Brix food product, but they do not have the refractive index accuracy and temperature control stability to distinguish the Refractive Index difference between substances such as Fentanyl and water.



The **VeriLinkR_x** was developed by Rudolph using technology predicated on rigorous pharmaceutical standards such as USP<831>. To meet the **verifiable ± 0.000005 reproducibility** the **VeriLinkR_x** has a highly stable measurement and temperature control system allowing the **VeriLinkR_x** to stabilize the sample temperature to **$20^{\circ}\text{C} \pm 0.01^{\circ}\text{C}$** , before measurement thereby eliminating measurement and temperature errors.

The operating system and graphical user interface are designed using strict pharmaceutical compliance criteria.

Although Rudolph is relatively new to hospital pharmacies, it has a 60 year history supplying instruments for pharmaceutical quality control.

VeriLinkR_x Closes the Broken Link in your Narcotics Chain of Custody Program

VeriLinkR_x is fast, easy, traceable, and accurate.

- A high volume, low cost way to combat drug diversion.
- Measurement time required – 10 seconds.
- Sample volume – 200 microliters.
- Measurement information is stored in a searchable and exportable database along with verification result, patient ID, medical staff, time and date.
- **VeriLinkR_x** is easy to use with minimal training.
- Create a baseline drug reference library for each drug in your facility.
- **VeriLinkR_x** detects when Fentanyl has been diluted.



VeriLinkR_x makes your chain of custody program better.

- **VeriLinkR_x** verifies that dispensed and returned narcotics are the same.
- Integrates into your current work flow easily.
- Expands your current drug diversion program to include actual returned sample testing.
- Is an inexpensive, in-house analytical test to identify possible diversion issues.
- Action is only required when tested samples fail.
- There are no consumables, monthly fees, costly training, or specialized operators.
- **VeriLinkR_x** saves money by reducing third party testing.

VeriLink_{Rx} tests TPN concentration levels

The Rudolph VeriLink_{Rx} has an optional application package that can be used to test the quality of TPN solutions. Manufacture of TPN solutions can be very profitable and many pharmacy directors are being encouraged to bring back in-house business that has been traditionally outsourced. The VeriLink_{Rx} tests the quality of the TPN solution and can validate if the dextrose concentrations are too high or too low.



The Rudolph VeriLink_{Rx} is a valuable addition to any hospital pharmacy looking to stay a step ahead of drug diversion and exposure to drug diversion related risks.

VeriLink_{Rx} Specifications

Refractometer Specifications J457 (All models)

Measurement scales: Refractive Index (nD), Brix (% Sucrose), and up to 100 custom programmed scales

Measurement range: Refractive Index 1.32 – 1.45
Brix 0 – 100

Accuracy: Refractive Index ± 0.00002
Brix 0.015

Reproducibility: Refractive Index ± 0.000005
Brix 0.015

Resolution: Refractive Index 0.000001, Brix 0.01

Temperature control range: All samples are brought to 20.00°C before measurement

Temperature control reproducibility: $\pm 0.01^\circ\text{C}$

Ambient temperature limit: 5°C to 40°C

Temperature correction range: 4°C to 95°C (for sucrose solutions)

Sample temperature limit: -20°C to 250°C

Optical wavelength: 589.3nm (NaD line)

Response time: User configurable, generally less than 30 seconds

Calibration: Using water or NIST traceable fluids. Factory default calibration can always be reset.

Prism: Artificial sapphire

Acid resistance: Hastelloy™ measurement surface (optional)

Data storage/internal memory: 8 GB Non-removable Compact Flash

Display: Adjustable 10.4 inch diagonal, 800-600 pixels, color, Flat Panel Monitor with Resistant Touch Screen Interface, 400 nits brightness, gasketed for spill protection

User interface: Touchscreen

Communication interface: 3 USB, RS232 and Cat5 Network (Ethernet)

Operating dimensions/weight: L: 17 1/4" W: 12" H: 13" / 23 lbs.
L: 43.5cm W: 30.5cm H: 33cm / 10.4 kg

Power requirements: 100 - 240 volts, 50 Hz - 60 Hz

VeriLink_{Rx}

TPN AND DRUG DIVERSION SYSTEM

Is Today's Solution for Identifying
and Deterring Drug Diversion