

Features	Benefits
<p><b>Supports the Multidisciplinary Nutritional Support Team through the process of nutritional assessment, ordering, and provisioning of TPN.</b></p>	<p><u>Physician:</u> Computerized Physician Order Entry (CPOE) with full Clinical Decision Support System (CDSS)  <u>Pharmacist:</u> order review, virtual formulation, review of formulation, and approval for formulation and formulation.  <u>Dietician:</u> nutritional effects of TPN therapy</p>
<p><b>Intuitive Order Format focused on Patient's Physiologic needs:</b></p> <ul style="list-style-type: none"> <li>- Order entry flow parallels the thought process of physicians caring for perenteral nutrition dependent pediatric patients.</li> <li>- User definable nutritional support protocols.</li> </ul>	<ul style="list-style-type: none"> <li>- Ease of training physicians in the ordering of TPN</li> <li>- Full support and enforcement of nutritional protocols, which meet the needs of a variety of different patient populations: NICU, PICU, SICU, Burn Unit, Home Care.</li> <li>- Ease of training pharmacy personnel to support the ordering physician.</li> </ul>
<p><b>CPOE: Computerized Physician Order Entry</b></p> <ul style="list-style-type: none"> <li>- Data entry screens are concise and logically organized.</li> <li>- Physician can verify that the order can be made.</li> <li>- Multiple users can enter data simultaneously across the enterprise</li> <li>- TPN MedSoft can be accessed on any networked PC on the hospital intranet</li> <li>- Alerts physician to the electrolyte and fluid effect of non-nutritional lines and the fluid impact of enteral feeds and fat emulsion.</li> <li>- Digital signature of TPN order</li> </ul>	<ul style="list-style-type: none"> <li>- Patient Safety by prevention of fluid and electrolyte overloading.</li> <li>- Error free computation process.</li> <li>- Computerized order process is faster and less error prone than manual processes.</li> <li>- Allows physicians to populate order entries with values from previous TPN formulations, thus reducing data entry time</li> <li>- Provides physician with instantaneous feedback on the metabolic impact of ordered additives that will reduce ordering errors.</li> <li>- Eliminates creation of orders which 'cannot be made'</li> <li>- Automatically sends physician order to pharmacy workstation for review and approval</li> <li>- All orders are electronically signed and dated</li> </ul>
<p><b>Intuitive, Pharmacist focused order review and approval process.</b></p> <ul style="list-style-type: none"> <li>- Enables pharmacist to confirm the order for protocol adherence, 'virtually' formulate a TPN order to confirm it can be made before sending it to be compounded.</li> <li>- Compare the TPN Order to the formulated product to verify that what was ordered is what is being delivered.</li> <li>- Functionality includes digitally signing each order as it is approved.</li> <li>- In collaboration with physician, pharmacist can adjust order to resolve occasional provisioning conflicts caused by unusual clinical situations.</li> </ul>	<ul style="list-style-type: none"> <li>- Enables the Pharmacist to add value and expertise to the TPN Nutritional support team.</li> <li>- Increases patient safety by allowing the creation of an optimal TPN order.</li> <li>- Eliminate guesswork in the formulation process.</li> <li>- See your results before the compounding process.</li> <li>- Eliminate waste of time and materials</li> <li>- Saves pharmacist time by providing a queue of TPN orders for review and approval.</li> <li>- TPN orders can be reviewed at any workstation running TPN MedSoft</li> <li>- Provides ultimate quality control to pharmacy staff for TPN formulation</li> </ul>

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<p><b>CDSS: Clinical Decision Support System</b></p> <ul style="list-style-type: none"> <li>- Access route (peripheral vs. central) patient weight and age automatically determines TPN order protocol</li> <li>- Each order entry field generates immediate feedback from the CDSS algorithms</li> </ul>	<ul style="list-style-type: none"> <li>- Prevents violation of or deviation from facility designed protocols</li> <li>- CDSS prevents data entry errors and inappropriate additive or quantity errors</li> <li>- Pull down menus speed up data entry within protocol limits</li> <li>- Assists user in determining optimal and Safest TPN formulation</li> <li>- CDSS prevents protocol errors and reduces data entry generated errors</li> </ul>
<p><b>Total Fluid Management</b></p> <ul style="list-style-type: none"> <li>- Ability to manage the total fluid intake of the patient</li> <li>- All sources of intravascular fluids are accounted for.</li> <li>- Enteral nutritional fluids are accounted for.</li> </ul>	<ul style="list-style-type: none"> <li>- Significantly increase patient safety</li> <li>- Impact of fluids extrinsic to TPN are subtracted from the ordered fluid dose to prevent fluid overload and its morbid consequences.</li> <li>- Prevent sodium overload and its morbid consequences</li> <li>- Nutritional impact of enteral nutrition is tracked and documented.</li> </ul>
<p><b>Total Electrolyte Management</b></p> <ul style="list-style-type: none"> <li>- All sources of electrolytes contained in intravascular fluids are accounted for.</li> </ul>	<ul style="list-style-type: none"> <li>- Increased patient safety</li> <li>- Impact of all electrolytes intrinsic to TPN additives are subtracted from the ordered electrolyte dose to prevent electrolyte overload and its morbid consequences.</li> </ul>
<p><b>Calcium Phosphate Precipitation Decision Support</b></p> <ul style="list-style-type: none"> <li>- Supports pharmacist evaluation of TPN Calcium &amp; Phosphate concentrations on known Ca/PO4 precipitation curves.</li> </ul>	<ul style="list-style-type: none"> <li>- Allows pharmacist to validate TPN formulation to prevent Ca PO4 precipitation.</li> <li>- Eliminate wasted time and materials involved in compounding a “bad” TPN.</li> <li>- Prevention of precipitation embolism</li> </ul>
<p><b>Configurable Safety Limits</b></p> <ul style="list-style-type: none"> <li>- Ability to set soft and hard limits</li> <li>- Ability to create customized TPN formulation templates</li> <li>- Ability to review all of the values of the initiation variables</li> </ul>	<ul style="list-style-type: none"> <li>- Set customized safety limits according to a hospitals individual protocols</li> <li>- Create individual custom templates for different physicians or patient scenarios</li> <li>- Preview information prior to input</li> <li>- Enables CDSS to reduce errors early in the</li> </ul>
<p><b>Serum Electrolyte Plotting</b></p> <ul style="list-style-type: none"> <li>- Ability to plot and review serum electrolyte values</li> </ul>	<ul style="list-style-type: none"> <li>- Review trends in serum chemistry values and evaluate impact of TPN interventions.</li> </ul>

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<p><b>Additive Pick Lists</b></p> <ul style="list-style-type: none"> <li>- Supports standard electrolytes and additives</li> <li>- Supports up to 3 additional additives selectable from hospital formulary</li> <li>- Additional additives selectable from hospital formulary pull down menu</li> <li>- Float Acetate or Chloride</li> <li>- Order Maximal amounts of Acetate or Chloride</li> <li>- User choice of units for additives</li> </ul>	<ul style="list-style-type: none"> <li>- Allows total customization of the TPN to the patients clinical and metabolic needs.</li> <li>- Instant access to hospital formulary for appropriate additives</li> <li>- Automatic allocation of Sodium, Potassium to Acetate and Chloride</li> <li>- Customization of units of measure to institutional conventions.</li> </ul>
<p><b>Automate TPN Compounding</b></p> <ul style="list-style-type: none"> <li>- Send secure, electronic HIPAA compliant output to:               <ul style="list-style-type: none"> <li>- Automated Compounding devices (Baxa, Clintech)</li> <li>- CAPS and other satellite compounding facilities</li> <li>- Local and remote label printers.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- Automatically program compounding devices</li> <li>- Eliminate transcription errors</li> <li>- Reduce pharmacy compounding time</li> <li>- Secure authentication, encryption and decryption maintain confidentiality and prevent tampering and corruption of data files.</li> <li>- Support for transfer of "TPN Label Files" to satellite compounding locations.</li> <li>- Baxa and Clintec compounder interfaces are available</li> <li>- Supports CAPS outsourced TPN Compounding..</li> </ul>
<p><b>Comprehensive Label Management</b></p> <ul style="list-style-type: none"> <li>- Fat Emulsion Infusion Label</li> <li>- TPN Content label</li> <li>- TPN Mixing Instruction label</li> <li>- TPN Summary label</li> <li>- Optical archiving of label images</li> <li>- Ability to print all 4 labels on one sheet of 8.5 x 11 paper for pharmacists review</li> </ul>	<ul style="list-style-type: none"> <li>- Create labels for every part of the TPN formulation, compounding, and administration process.</li> <li>- Eliminate interpretation mistakes with clear, easy to read labels, which were the model for the ASPEN standard.</li> <li>- Reduce nursing calls to clarify TPN orders.</li> <li>- Archival images of labels to meet Board of Pharmacy recordkeeping requirements.</li> <li>- Itemization of electrolyte concentrations and Refractive Index to support End-Product-Testing.</li> </ul>
<p><b>Barcoded Labels</b></p> <ul style="list-style-type: none"> <li>- Ability to print a standard barcode on any of the TPN labels</li> </ul>	<ul style="list-style-type: none"> <li>- Barcode ready for automated patient identification systems</li> <li>- Enable Point of Care barcode scanning of TPN bags</li> <li>- Improve patient safety through barcode validation of the 5 rights using a hospitals POC barcode scanning system</li> </ul>
<p><b>Refractive Index Quality Assurance</b></p> <ul style="list-style-type: none"> <li>- Ability to input, track, and report on RI data from formulated TPN solutions</li> </ul>	<ul style="list-style-type: none"> <li>- A better way to keep track of RI data</li> <li>- Simple, easy to use database to input, track, and report on RI data</li> <li>- Save time in managing QA information</li> </ul>

Features	Benefits
<p><b>Electrolyte Quality Assurance</b></p> <ul style="list-style-type: none"> <li>– Ability to input, track, and report on the final concentration of TPN electrolytes</li> </ul>	<ul style="list-style-type: none"> <li>– Monitor the quality of TPN formulations.</li> <li>– Document the precision of the formulation process.</li> </ul>
<p><b>Exportable data formats:</b></p> <ul style="list-style-type: none"> <li>– XML data output</li> <li>– Excel compatible data tables</li> </ul>	<ul style="list-style-type: none"> <li>– Support for research activities</li> <li>– Pooling of multi-institutional data for research purposes.</li> </ul>
<p><b>Flexible Implementation</b></p> <ul style="list-style-type: none"> <li>– Ability to scale from one to many users across an enterprise</li> <li>– Can run on an independent local server or reside on a hospital server</li> </ul>	<ul style="list-style-type: none"> <li>– Highly scalable application enables CPOE and RPh data entry across the enterprise</li> <li>– Deploy the application in phases without disruption to TPN processes</li> </ul>
<p><b>Retrospective Patient Views</b></p> <ul style="list-style-type: none"> <li>– Ability to review past orders and formulation instructions</li> <li>– Ability to clone an old order instead of starting fresh every day</li> </ul>	<ul style="list-style-type: none"> <li>– Saves time by reducing data entry requirements</li> <li>– Compare old orders to new orders to catch potential errors</li> <li>– Ability to determine therapy trends</li> </ul>
<p><b>Regulatory Compliance</b></p> <ul style="list-style-type: none"> <li>– A PDF copy of all output is generated and stored to satisfy board of pharmacy regulations</li> </ul>	<ul style="list-style-type: none"> <li>– Comply with board of pharmacy regulations</li> <li>– All historical data and patient records are retained indefinitely and is easily retrieved and reviewed</li> </ul>
<p><b>Data Storage and Back-Up</b></p> <ul style="list-style-type: none"> <li>– All historical data and patient TPN records are stored indefinitely.</li> <li>– Ability to write back-up copies of all data to optical and other external storage media</li> </ul>	<ul style="list-style-type: none"> <li>– A permanent record of all of your data</li> <li>– Search, retrieve, and review historical information quickly and easily</li> <li>– View PDF copies of actual TPN labels</li> </ul>
<p><b>Cost Data</b></p> <ul style="list-style-type: none"> <li>– TPN MedSoft enables cost calculations for TPN Orders</li> </ul>	<ul style="list-style-type: none"> <li>– Determine what every TPN costs to make</li> <li>– Trend, report, and manage TPN costs with accurate and timely reports</li> </ul>
<p><b>Cascading Help Menus</b></p> <ul style="list-style-type: none"> <li>– Help menus provide online assistance throughout the TPN formulation process</li> </ul>	<ul style="list-style-type: none"> <li>– Reduce user errors</li> <li>– Reduce training time</li> <li>– Improve confidence of users</li> </ul>
<p><b>Robust Program Security</b></p> <ul style="list-style-type: none"> <li>– Password Protected Program execution</li> <li>– Flexible permissions structure with multiple access levels</li> <li>– Order entry user: physician, pharmacy technicians.</li> <li>– Pharmacist: order review, approval and formulation</li> <li>– Administrator: Add &amp; Delete users and perform Password maintenance</li> <li>– Encrypted password storage</li> <li>– Ability to mirror institutional password policy</li> </ul>	<ul style="list-style-type: none"> <li>– The highest possible security for your patient data through an additional security layer to that provided by the Operating System.</li> <li>– Very easy to use administration of user access to the application</li> <li>– Fully HIPAA compliant security model.</li> <li>– Ability to mirror an institution's password policy: password length, nature of password's alpha and numeric characters, and password longevity.</li> </ul>