



**Compliance & Validation Services**  
**Presents a 3-Day Online Training Course on:**  
**Understanding Pharmaceutical Packaging**

**3, 4 & 5 December 2024**



December 2024						
Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

[Click here to visit the web page for this course](#)

- Purpose of pharmaceutical packaging
- Selection criteria and types of packaging available
- Applicable regulatory and industry guidance
- Regulatory submission requirements
- Summary of Product Characteristics and the Common Technical Document
- Glass, plastic and metal primary packaging materials explained in detail
- Secondary packaging requirements
- Tertiary packaging and transit packaging
- Functional testing of packaging
- Stability studies
- Extraction and migration studies
- Safety features, e.g. Anti-Tamper Device, Unique Identifier, Serialisation, Aggregation
- Overview of qualification and validation requirements
- Packaging equipment qualification
- Safety feature qualification
- Packaging process validation

## Course Summary: Understanding Pharmaceutical Packaging - 3, 4 & 5 December 2024 - Online Training Course

This course provides attendees with an overall appreciation of the complex activities/technology involved in the life-cycle of Pharmaceutical Packaging projects, ranging from material/pack selection/design (based on the product dosage form and product material characteristics), through to the final validation of the Packaging Process and subsequent Ongoing Process Verification. Within this range the course covers: applicable regulatory guidance/rules and international standards; emerging legislation on counterfeit, falsified medicines and product security; development goals for new packaging design and the packaging options available; testing and evaluation of packaging/materials involving; stability and functional testing, extraction and migration studies; and leachables. The course also covers key properties of primary packaging materials/forms and will cover the barrier properties offered in terms of temperature resistance, chemical compatibility and physical properties. Example of primary packaging materials will include glass, plastics, and metals and packaging formats including laminates, blisters, tubes and closures.

A general introduction to the qualification and validation of packaging equipment will be given and this will lead into more detailed presentations covering: risk assessments to determine depth and scope of testing; the qualification of pharmaceutical packaging equipment; testing at the key stages of qualification, including packing safety features design and qualification (e.g. Serialization, Anti-tamper and 2D Data Matrix Codes); Packaging Process Validation (scope, approaches and sampling/testing) and Ongoing Process Verification.

### Presenters



**Chris Penfold, Packaging Development Services Ltd:** Chris is an experienced Freelance Packaging Development Specialist with a proven track record in general and technical management. He is a packaging professional with over 35 years packaging development and NPD experience working in senior packaging roles on £million-brands in the OTC, healthcare, Rx pharma, veterinary and Medical Device arenas for 'blue-chip' multinational companies such as Glaxo (GSK), CIBA (Novartis), Boots Healthcare International and Reckitt Benckiser Healthcare. Chris is a Chartered Environmentalist & Marketer with extensive cross-functional experience in a broad spectrum of related disciplines, including production, supply chain, QC and marketing. He has experience working in various European countries, Middle East, North America and the Far East; Underpinned by proven interpersonal skills, the ability to make things happen and experience gained from independent international consultancy projects and running his own business. Chris has been delivering a range of highly acclaimed & successful packaging training courses to a Global audience for the past 15 years.



**John Welbourn, Compliance & Validation Services Limited:** A validation professional with over 30 years experience, John has been responsible for the management and execution of validation projects for many major pharmaceutical companies. He has broad experience in the qualification of equipment, utilities, computerised systems, and thermal mapping to support storage conditions. He has presented at conferences in the UK, Europe and the US and has authored several articles on various aspects of validation. John has contributed to The University of Manchester's, Pharmaceutical Engineering Advanced Training (PEAT) Course and Dublin Institute of Technology's (DIT) MSc course in Pharmaceutical Process Validation.



**Mike James, Compliance & Validation Services Limited:** Mike has 25 years experience in the pharmaceutical industry, working in a variety of compliance and validation roles. His experience includes preparation and delivery of national/client-based validation training courses, hands-on validation work, validation project management and regulatory compliance consultancy. Previously, Mike spent four years as the Site Validation Manager for GlaxoSmithKline (GSK) at Speke, where he was responsible for all site validation activities, including the development and maintenance of the Site Validation Programme. Before moving to the pharmaceutical industry he spent 15 years as an industry chemist.

### Who Should Attend

The course is ideally suited to people who are involved directly in Pharmaceutical Packaging (projects, development, operations and ongoing support staff), or people indirectly involved, whose job roles require them to have a general understanding of the principles, standards and regulations that apply to Pharmaceutical Packaging. People from roles such as new product/packaging development, quality assurance (approval of art-work/documentations relating to packaging operations), technical support, QC testing, production supervisory staff and qualification/validation should benefit from this course. The information imparted should be advantageous to people who are new to Packaging roles, or experienced personal who want to refresh/reinforce/expand their knowledge base in this area.

On completing the course, attendees will have a broad/in-depth understanding of the activities involved in the lifecycle of Packaging projects, be able to apply and share their new knowledge to improve their individual effectiveness and look back on a valuable experience.

### Online System & Course Fees

We use industry standard online meetings software platforms to run our live online training courses. Once we have received your booking, you will be contacted by email with details on how to join each day of the course. Please note that we do not record our courses.

**Course fees are **£1,750.00 (GBP)** per attendee.**

*(See Page 4 for further details on fees/bookings)*



DAY 1 (Tuesday 3 December 2024)	DAY 2 (Wednesday 4 December 2024)	DAY 3 (Thursday 5 December 2024)
<b>Start: 08:00 London/Dublin; 09:00 CET</b>	<b>Start: 08:00 London/Dublin; 09:00 CET</b>	<b>Start: 08:00 London/Dublin; 09:00 CET</b>
<p><b>Introduction</b> <i>[John Welbourn]:</i></p> <ul style="list-style-type: none"> <li>Purpose of pharmaceutical packaging and an overview of the types of packaging materials</li> <li>Selection criteria</li> <li>Packaging development, testing and validation</li> <li>Key concepts of packaging equipment qualification and process validation</li> </ul>	<p><b>Cartons (Secondary Packaging)</b> <i>[Chris Penfold]:</i></p> <ul style="list-style-type: none"> <li>Paperboard</li> <li>Carton format, shapes and styles</li> <li>Carton materials</li> <li>Creasing and cutting</li> <li>Carton testing</li> </ul>	<p><b>Introduction to The Qualification and Validation of Packaging Equipment</b> <i>[John Welbourn]</i></p> <ul style="list-style-type: none"> <li>Key concepts, e.g. what's the difference between validation and qualification</li> <li>Regulations and terminology used (US Vs Europe)</li> <li>Typical sequence of activities</li> <li>Critical Quality Attributes (CQAs), Critical Material Attributes (CMAs) and Critical Process Parameters (CPP's) explained for different types of packaging operations.</li> <li>Determining the scope of qualification, i.e. What do we need to qualify / validate.</li> <li>Key considerations for packaging lines, e.g. line clearance</li> </ul>
<p><b>Purpose of Pharmaceutical Packaging</b> <i>[Chris Penfold]:</i></p> <ul style="list-style-type: none"> <li>Key functions/roles of pharmaceutical packaging</li> <li>New product development process</li> <li>Considerations for pack development</li> <li>Summary of Product Characteristics – what's in it</li> <li>Packaging formats, material properties/characteristics and material compatibility</li> <li>Packaging testing overview</li> </ul>	<p><b>Artwork and Leaflets</b> <i>[Chris Penfold]:</i></p> <ul style="list-style-type: none"> <li>General requirements</li> <li>Information leaflets: <ul style="list-style-type: none"> <li>Materials, folds, issues and testing</li> </ul> </li> <li>Readability</li> <li>Brail</li> <li>Labelling - materials, construction and requirements</li> <li>Key challenges</li> <li>Label adhesives</li> <li>Testing</li> </ul>	<p><b>Qualification of Packaging Equipment</b> <i>[Mike James]</i></p> <ul style="list-style-type: none"> <li>Overall qualification sequence of events explained</li> <li>Impact assessments and risk assessments to determine the scope and depth of testing required, examples for a range of packaging operations</li> <li>Typical testing carried out at Design Qualification (DQ), Installation Qualification (IQ) and Operational Qualification (OQ) <ul style="list-style-type: none"> <li>What quality testing is required</li> </ul> </li> <li>Factory Acceptance Testing (FAT) and Site Acceptance Testing (SAT) <ul style="list-style-type: none"> <li>Documentation and material requirements</li> <li>What testing can we carryout at these stages and what tests can we leverage into the IQ and OQ to avoid repetition</li> </ul> </li> </ul>
<p><b>Regulatory Requirements and Industry Guidance</b> <i>[John Welbourn]:</i></p> <ul style="list-style-type: none"> <li>Global regulations and standards</li> <li>Key European legislation and guidance</li> <li>GMP regulations and guidance</li> <li>Pharmacopoeia</li> <li>ICH and Pharmaceutical Quality Group guidance</li> </ul>	<p><b>Tertiary and Transit Packaging</b> <i>[Chris Penfold]:</i></p> <ul style="list-style-type: none"> <li>Types and measurements</li> <li>Issues</li> <li>Testing</li> </ul>	<p><b>Packing Safety Features Qualification</b> <i>[John Welbourn]:</i></p> <ul style="list-style-type: none"> <li>Serialisation qualification</li> <li>Anti-Tamper Device (ATD) qualification</li> <li>Unique Identifier qualification <ul style="list-style-type: none"> <li>Bar code</li> <li>2-D Matrix Code print quality</li> <li>Test parameters and grade levels</li> </ul> </li> <li>Human readable data verification</li> </ul>
<p><b>Regulatory Submission Requirements</b> <i>[Chris Penfold]:</i></p> <ul style="list-style-type: none"> <li>Registration Dossier and Drug Master File (DMF) contents</li> <li>The submission /approval process</li> <li>Common Technical Document (CTD) and CTD modules</li> </ul>	<p><b>Choice of Packaging</b> <i>[Chris Penfold]:</i></p> <ul style="list-style-type: none"> <li>Selection criteria</li> <li>Regulatory Context</li> </ul>	<p><b>Packaging Process Validation</b> <i>[John Welbourn]</i></p> <ul style="list-style-type: none"> <li>Links to CQAs/CMAs and CPPs</li> <li>Lengths and numbers of batches required <ul style="list-style-type: none"> <li>Can we use a matrix approach?</li> </ul> </li> <li>Documentation requirements and acceptance criteria</li> <li>Sampling and testing requirements – Monitoring of CQAs and CMAs</li> <li>Controlling/monitoring of CPPS</li> <li>Ensuring personnel variables are covered, e.g. breaks and shift changes</li> <li>Reporting</li> </ul>
<p><b>Glass Pharmaceutical Packaging</b> <i>[Chris Penfold]:</i></p> <ul style="list-style-type: none"> <li>Types of glass</li> <li>Manufacture of glass containers, e.g., moulding</li> <li>Surface coating</li> <li>Potential issues with glass containers</li> <li>Product interactions</li> <li>Benefits and limitations of using glass</li> <li>Testing of glass containers</li> </ul>	<p><b>Stability – Testing and Evaluation</b> <i>[Chris Penfold]</i></p> <ul style="list-style-type: none"> <li>Purpose of testing</li> <li>Types of testing involved</li> <li>Ongoing monitoring, after approval</li> <li>Post approval changes</li> <li>Climatic Zones</li> <li>Photo Stability</li> </ul>	<p><b>Ongoing Process Verification</b> <i>[Mike James]</i></p> <ul style="list-style-type: none"> <li>Monitoring and trending of CMA's and CQA's</li> <li>Monitoring of the control of CPPs</li> <li>Use of statistics</li> </ul>
<p><b>Plastic Packaging</b> <i>[Chris Penfold]:</i></p> <ul style="list-style-type: none"> <li>Manufacturing process</li> <li>Types of plastics</li> <li>The use of thermoplastics, e.g. polyethylene (low and high density), polypropylene and polystyrene (including expanded polystyrene)</li> <li>Thermosetting plastics</li> <li>Rubbers and elastomers</li> <li>Benefits and limitations</li> </ul>	<p><b>Functional Testing</b> <i>[Chris Penfold]:</i></p> <ul style="list-style-type: none"> <li>How to ensure packs are fit for purpose</li> <li>Protection testing</li> <li>Safety testing</li> <li>Compatibility testing</li> <li>Performance Testing</li> </ul>	
<p><b>Moulding Techniques for Plastic Packaging</b> <i>[Chris Penfold]:</i></p> <ul style="list-style-type: none"> <li>Injection moulding</li> <li>Compression</li> <li>Blow moulding</li> <li>Extrusion</li> <li>Injection, stretch and blow moulding</li> </ul>	<p><b>Extraction/Migration Studies</b> <i>[Chris Penfold]:</i></p> <ul style="list-style-type: none"> <li>Extractables and leachables explained</li> <li>Extraction and leaching studies</li> <li>Case studies</li> <li>Sorption studies</li> <li>Reference guides and practical application of rules and guidance</li> </ul>	
<p><b>Metal Packaging</b> <i>[Chris Penfold]:</i></p> <ul style="list-style-type: none"> <li>Types of packaging</li> <li>Benefits and limitations</li> </ul>	<p><b>Pack Safety Features Design</b> <i>[John Welbourn]:</i></p> <ul style="list-style-type: none"> <li>Child resistant packaging</li> <li>Safety features and why they are required</li> <li>Unique Identifier and Anti-Tamper Devices</li> <li>Regulatory requirements</li> <li>Serialisation – serial numbers, aggregation and data matrix codes explained</li> </ul>	
<b>Finish: 16:00 London/Dublin; 17:00 CET</b>	<b>Finish: 16:00 London/Dublin; 17:00 CET</b>	<b>Finish: 16:00 London/Dublin; 17:00 CET</b>



## How to book on this course:

- The simplest and quickest way is to book online. Please use the 'click here' link below to visit the web page for this course, or
- Print out this page, complete the form below by hand and return by fax, email or post.

[CLICK HERE TO BOOK ONLINE](#)

Fax: +44 (0)1625 800833

Tel: +44 (0)1625 500833 or +44 (0)1270 760882

E-mail: [info@candvs.com](mailto:info@candvs.com)

### Alternative Booking Form (<sup>“\*</sup> indicates required fields)

### Booking Terms & Conditions

<b>*Booking Contact Name:</b>		
<b>*Booking Contact E-mail Address:</b>		
<b>*Booking Contact Telephone Number:</b>		
<b>*Company Name &amp; Address:</b>		
<b>*Billing Address</b> <i>(Only complete if different to Company Address)</i>		
<b>*Attendee Information:</b>	<b>Attendee Name(s):</b>	<b>Attendee Email Address:</b>
<b>Company VAT Number (or Sales Tax Number) – *EU Countries Only</b>		
<b>*Method of payment, e.g. card or invoice payment</b>	NOTE: For card payments by telephone, please ensure you have entered your telephone number above and we will contact you. Alternatively, call +44 (0)1625 500833 to make your payment.	
<b>Payment Reference (if available)</b>	NOTE: For invoice payments we will need a valid purchase order number to fully confirm the booking.	
<b>* Total Fees Due</b> <b>£1,750 [GBP]</b> per attendee	NOTE: If your finance centre or attendees are based in the United Kingdom (UK), or attendees are booking as private individuals (non-company), the course fee will be subject to an additional 20% UK VAT charge (£2,100 per attendee including UK VAT). For EU Countries where finance centres and attendees are NOT based in the UK, VAT will be ZERO RATED under the reverse charge rule. For non-EU countries and non-EU attendees, VAT is not applicable.	

#### Booking Confirmation

Bookings will only be confirmed upon payment by credit card, or in the case of invoice payment (bank transfer), upon receipt of a valid purchase reference number.

#### Cancellation by Attendees

Cancellation refunds will depend on how long before the course start date the cancellation is received. The following refund structure will apply:

- More than 7 days will qualify for a refund of the course fee paid after the deduction of actual expenses incurred by CVS in connection with the course that the attendee has registered for and there shall be no future liability on the part of either party.
- No refund will be given for cancellations received with less than 7 days' notice.
- Substitutions for registered attendees from the same company will be accepted without notice, but for administration purposes, we kindly ask you to let us know as soon as you can.

#### Cancellation by CVS

CVS does not issue refunds for attendees unless:

- We have cancelled a course.
- We have changed the time or date of a course.

If we do cancel or reschedule an event, CVS is not responsible for any costs incurred by attendees. Only the course fee will be refunded.

Please be assured that we are not in the habit of cancelling events. We only cancel events in exceptional circumstances.

#### Speaker/Presenter Changes

We reserve the right to change a speaker without notice.

#### Course Fee & VAT Liability

For the majority of participating countries, VAT will be ZERO rated. However, for companies whose finance centre is based in the United Kingdom (location where invoices are managed) the indicated course fee will be subject to an additional 20% UK VAT charge. Also, anyone booking as a private individual (not through a company) will be charged UK VAT. CVS has to charge this by law.

All participating EU / EEA based companies (based on the site location), must provide CVS with a valid VAT/Sales Tax reference number, in order for the booking to be completed. CVS is required by law to collect this information.

#### Liability

CVS reserve the right to cancel or reschedule any course and/or change presenters.

CVS will not provide a refund for an online course if an attendee cannot use the online system, because of local IT restrictions/issues.

[CLICK HERE TO VIEW OUR PRIVACY POLICY](#)