

الاختبارات المطلوب عملها

لجميع الأشكال الصيدلانية طبقاً لمنظمة الصحة العالمية (بعد التعديل)

Dosage Form	Tests to be done
<u>1-Tablets:</u>	<ul style="list-style-type: none"> - Physical characters (appearance and color) - Average weight - Dissolution (or disintegration, if justified) -Water content -Hardness / Friability -Level of microbial contamination.
<u>2-Capsules:</u> <u>- Hard gelatin capsules:</u>	<ul style="list-style-type: none"> - Physical characters (appearance and color) -Average weight (of whole capsule and capsule content) -Brittleness -Dissolution (or disintegration, if justified) -Water content - Level of microbial contamination.
<u>- Soft gelatin capsules</u>	<ul style="list-style-type: none"> - Physical characters (appearance and color) -Average weight (of whole capsule and capsule content) -Dissolution (or disintegration, if justified) -Level of microbial contamination -PH -Leakage -Pellicle formation.
<u>3-Emulsions:</u>	<ul style="list-style-type: none"> -Physical characters (appearance and color) -Phase separation - PH - Viscosity -Level of microbial contamination -Mean size and distribution of dispersed globules
<u>4-Oral Solutions & Suspensions:</u>	<ul style="list-style-type: none"> - Physical characters (appearance and color) -Formation of precipitate -Clarity for solutions - PH -Viscosity -Extractables -Level of microbial contamination. -<u>Additionally for suspensions:</u> -Redispersibility -Rheological properties -Mean size -Distribution of particles should be considered. -Also;polymorphic conversion may be examined,if applicable

<p><u>5-Powders & Granules for Oral Solutions or Suspensions:</u></p>	<ul style="list-style-type: none"> - Physical characters (appearance and color) - Water content - reconstitution time. - <u>Reconstituted products</u> (solutions & suspensions) should be evaluated as described in “Oral solutions & Suspensions” above, after preparation according to the recommended labeling, through the maximum intended use period.
<p><u>6-Metered-dose, Inhalers & Nasal Aerosols:</u></p>	<ul style="list-style-type: none"> -Dose content uniformity -Labeled number of medication actuations per container meeting dose content uniformity, -Aerodynamic particle size distribution -Microscopic evaluation, -Water content -Leak rate -Level of microbial contamination -Valve delivery (shot weight) & extractables/ leachables from plastic & elastomeric components -Samples should be stored in upright & inverted/on-the-side orientations. <p><u>-For suspension-type aerosols:</u> The appearance of the valve components & container’s contents should be evaluated microscopically for large particles & changes in morphology of the drug surface particles, extent of agglomerates, crystal growth, as well as foreign particulate matter. These particles lead to clogged valves or non-reproducible delivery of a dose. Corrosion of the container or deterioration of the gaskets may adversely affect the performance of the drug product.</p>
<p><u>7-Nasal Sprays: Solutions & Suspensions:</u></p>	<ul style="list-style-type: none"> -Clarity (for solutions) -level of microbial contamination -PH -Particulate matter, -Unit spray per container -Droplet &/or particle size distribution -Weight loss -Pump delivery -Microscopic evaluation (for suspensions) -Foreign particulate matter & extractables/ leachables from plastic & elastomeric components of the container -Closure - pump

<p><u>8-Topical, Ophthalmic & Otic preparations:</u></p>	<ul style="list-style-type: none"> - <u>Included in this broad category:</u> Ointments, creams, lotions, pastes, gels, solutions, Eye drops, & cutaneous sprays. - <u>Topical preparations should be evaluated for:</u> <ul style="list-style-type: none"> - Physical characters (appearance and color) -Clarity -Homogeneity -PH - Resuspendability (for lotions) -Consistency -Viscosity -Particle size distribution (for suspensions, when feasible) -Level of microbial contamination /sterility - Weight loss (when appropriate). - <u>Evaluation of ophthalmic or otic products</u> (e.g. creams, ointments, solutions & suspensions) should include the following <u>additional attributes:</u> <ul style="list-style-type: none"> -sterility (in case of otic products if antibiotics are present only) -particulate matter & extractable. - <u>Evaluation of cutaneous sprays should include:</u> <ul style="list-style-type: none"> -Pressure -Weight loss -Net weight dispensed -Delivery rate -Level of microbial contamination -Spray pattern -Water content -Particle size distribution (for suspensions) .
<p><u>9-Suppositories:</u></p>	<ul style="list-style-type: none"> -Softening range -Dissolution (at 37°C)
<p><u>10-Small Volume Parenterals (SVPs):</u></p>	<ul style="list-style-type: none"> - Color -Clarity (for solutions) -Particulate matter -PH -Sterility -Endotoxins.

	<p>- <u>Stability studies for powders for injection solution should include :</u></p> <ul style="list-style-type: none">-Monitoring for color-Reconstitution time- Water content <p><u>Specific parameters to be examined at appropriate intervals throughout the maximum intended use period of the reconstituted drug product, stored under condition(s) recommended in labeling should include:</u></p> <ul style="list-style-type: none">-Clarity-Color-PH-Sterility-Pyrogen/ endotoxin-Particulate matter <p><u>The stability studies for suspensions for injection should include, in addition:</u></p> <ul style="list-style-type: none">-Particle size-Distribution-Redispersibility-Rheological properties <p><u>The stability studies for emulsion for injection should include, in addition:</u></p> <ul style="list-style-type: none">-Phase separation-Viscosity-Mean size-Distribution of dispersed phase globules
<p><u>11-Large Volume Parenterals (LVPs):</u></p>	<ul style="list-style-type: none">-Color,-Clarity-particulate matter-PH-Sterility-Pyrogen/ endotoxin-Volume.
<p><u>12-Transdermal Patches:</u></p>	<ul style="list-style-type: none">-In vitro release rates-Leakage-Level of microbial contamination/ sterility-Peel-Adhesive forces