### **GUIDANCE NOTES**



# ACTIVE PHARMACEUTICAL INGREDIENT (API) INFORMATION (PART II S) FOR PRODUCT REGISTRATION APPLICATION VIA QUEST SYSTEM



CENTRE OF PRODUCT AND COSMETIC EVALUATION
NATIONAL PHARMACEUTICAL REGULATORY AGENCY (NPRA)

Please note that this Guidance Notes serves as a supplementary document to *Drug Registration Guidance Document (DRGD): Appendix 11: Regulatory Control of Active Pharmaceutical Ingredients (APIs)*. Please refer to both documents before completing product registration application (Part II Section S) via QUEST system. An incomplete application form or dossier (with major deficiencies) is likely to be rejected during submission.

#### **Table of Content**

- A. New Product Registration Application
- B. Regulatory Control of API for Product Registered Before the Implementation of Directive on Regulatory Control of API in Malaysia
- C. Regulatory Control of Atypical APIs
- D. Mode of Submission for Drug Master Files (DMFs)
- E. Product Registration Application Referencing to WHO Prequalified APIs

### A. New Product Registration Application

- 1) All Part II Section S information should be submitted through QUEST system (except for Closed part of Drug Master File (DMF) for DMF option). Please refer to 'Help Button' in QUEST system for assistance during online submission.
- 2) All Part II Section S information in mandatory field should be filled up according to the original dossier.
- 3) Original document should be uploaded to QUEST system for all API information (S1 to S10).
- 4) Separate Part II Section S information (in the same product registration application form) should be submitted when:
  - i. A finished product contains more than one API
  - ii. An API is manufactured from more than one manufacturing site
  - iii. An API is manufactured using more than one synthesis route
- 5) Please select the **correct API manufacturer** (with the exact name & address) from QUEST database and ascertain your selection. Changes to the name or address of an API manufacturer are NOT possible once a saved form is created.
- 6) There are three options for Part II Section S information submission. Requirements for each submission option are available in *Drug Registration Guidance Document (DRGD):*Appendix 11: Regulatory Control of Active Pharmaceutical Ingredients (APIs). A summary of these requirements is provided in Appendix I.
- 7) A change of submission option is NOT allowed once screening approval is obtained.
- 8) Change or addition of API manufacturer is not allowed once screening approval is obtained.

9) Please also refer to Appendix II for API Administrative Procedure.

# B. Regulatory Control of API for Product Registered Before the Implementation of Directive on Regulatory Control of API in Malaysia

- 1) This section is applicable for registered products containing Scheduled Poison in ALL dosage forms with the expiration of the registration period starting 1 January 2020.
- 2) At the point of writing, NPRA has identified <u>anti-infective APIs</u> as the selected category for assessment purposes. This category was selected based on current public health needs and risk-based approach which may be extended to other categories from time to time.
- 3) Please refer to DRGD: Appendix 11 for full information.
- 4) Please refer to Appendix III for Administrative Procedure for Regulatory Control of Active Pharmaceutical Ingredient (API) In Registered Product Containing Anti Infective API; and Appendix I for Active Pharmaceutical Ingredient (API) Submission Checklist for Product Registration.

### C. Regulatory Control of Atypical APIs

- 1) This section of guidance notes is focusing on the content of regulatory control of Atypical API in Malaysia and is applicable for product registration in Malaysia.
- 2) Atypical APIs are excipient, food additive or cosmetic ingredient used as an active ingredient in pharmaceutical products. These substances are known to have lower risk and widely used outside of the pharmaceutical industry, that have meet recognized <u>quality standards</u>, as atypical APIs for the purpose of this guidance.
- 3) A list of Atypical APIs is available in <u>Appendix IV</u>. This list not meant to be exhaustive and will be reviewed by NPRA from time to time.
- 4) Regulatory requirement for Atypical APIs is outlined in <u>Appendix V</u>. Should a risk to health be identified, NPRA will take appropriate compliance and enforcement action proportional to the risk.
- 5) Please refer to DRGD: Appendix 11 for full information.

#### D. Mode of Submission for Drug Master Files (DMFs)

- 1) Effective 1 Jan 2021, NPRA is encouraging submission of digital DMFs /e-DMF.
- 2) A complete DMF (containing both closed part & open part information) with a Letter of Access (LoA) shall be submitted by DMF Holders to NPRA before local PRH submits a product registration application via QUEST system.

- 3) DMF holders may communicate the transfer matters with NPRA via email <a href="mailto:apiscreeningsub@npra.gov.my">apiscreeningsub@npra.gov.my</a> (for New Drug Products) or <a href="mailto:apiscreening@npra.gov.my">apiscreening@npra.gov.my</a> for (Generic Products). Information below shall be provided as reference:
  - a. Indication for submission: New Product Application/ Renewal/ Variation
  - b. Name of Product
  - c. Name of Product Registration Holder (PRH)
  - d. Name of API
  - e. Name of DMF Holder
  - f. Name and Address of API Manufacturer
  - g. DMF Version Number (for both Open & Closed part)
- 4) DMF holders may transfer the digital DMF via their preferred platform and may communicate the matters with NPRA officers via email stated above.
- 5) When NPRA received the digital DMF, NPRA will send acknowledgment email to confirm the receipt of digital DMF shared.
- 6) DMF holders that wish to continue sending DMFs via courier services may attach a cover letter with a copy of complete DMF in CD/DVD/USB together with a LoA directly to NPRA at address below:

Head of \*\_\_\_\_\_ Section
Centre of Product and Cosmetic Evaluation
National Pharmaceutical Regulatory Agency
Ministry of Health Malaysia
Lot 36, Jalan Universiti
46200 Petaling Jaya
Malaysia

\*indicated according to product category (e.g., New Drug Product or Generic)

### E. Product Registration Application Referencing to WHO Prequalified APIs

- 1) World Health Organization (WHO) via the Prequalification Programme, set up in 2001, is aimed to facilitate access to medicines that meet unified standards of quality, safety and efficacy for HIV/AIDS, malaria and tuberculosis. In 2006, this was extended to cover medicines and products for reproductive health and again in 2008, to cover prequalification of zinc, for managing acute diarrhea in children. At the end of 2012, the WHO List of Prequalified Medicinal Products contained 316 medicines for priority diseases.
- 2) The WHO Prequalified API list contains sources of active pharmaceutical ingredients (APIs) that have been assessed by WHO and found to be acceptable, in principle, for use in finished pharmaceutical products procured by United Nations agencies.
- 3) Inclusion in the list of prequalified APIs does not constitute a WHO endorsement or warranty of fitness of purpose of the API for use in a particular finished pharmaceutical product (FPP), or of the safety or efficacy of the resultant FPP for treatment or health care. It remains the ultimate responsibility of the FPP manufacturer to ensure that the API, as accepted in principle, is suitable for the manufacture of the specific FPP.
- 4) In the spirit of harmonisation of regulatory activities and optimisation of efficient assessment, NPRA has outlined submission requirements for APIs that have been prequalified by WHO (refer to Appendix I).

- 5) PRH shall choose ACTD option (in QUEST system) for API source that have been prequalified by WHO. A copy of Confirmation of WHO Active Pharmaceutical Ingredient Prequalification (CPQ) shall be upload to QUEST system.
- 6) The submission shall be supported with a Letter of Access (LoA) from the DMF holder authorizing NPRA and PRH to incorporate as reference the content of DMF for that product registration application.
- 7) The LoA should include the following:
  - a. Name of DMF holder
  - b. Name and address of API manufacturing facility
  - c. DMF version number (for Applicant's part and Restricted part) shall be the same as prequalified API
  - d. Name of the finished product (product name, dosage form and product strength
  - e. Local product registration holder (PRH) responsible for product registration
  - f. A declaration that the local PRH and NPRA shall be notified of any changes in the API specification or in the manufacturing process that will likely affect the product's quality or safety
  - g. Name and email address of person(s) to be contacted for additional information
  - h. Signature of authorizing official
- 8) However, submission of closed part of the DMF (by DMF Holders) to NPRA is not required unless requested during evaluation process. The PRH shall upload the required information of the open part of the DMF to QUEST system.
- 9) All API information submitted to QUEST system shall be the same as those assessed and accepted by WHO Prequalification Unit. Applications with any deviation from WHO prequalified API information (unless justified) will be rejected as ACTD option. Hence, a resubmission as DMF option will be required.

## SUMMARY OF REQUIRED DOCUMENTS FOR ACTIVE PHARMACEUTICAL INGREDIENT (API) INFORMATION IN PRODUCT REGISTRATION

| 1. Submission   Option in QUEST   System   Option   ASEAN Common Technical Dosser (ACTD)   ACTD   DMF   CEP   ACC   Certificate of Suitability   CEP   Certificate of Suitability   Option   O   | NO. | SECTIONS/                    | CONTENTS  | MANDATORY INFORMATIO |          |   |          |
|--|-----|------------------------------|---|----------------------|----------|---|----------|
| Option in QUEST system in ASEAN Common Technical Dossier (ACTD) Refer to DRGD Appeack 11 for description Date of expiry (By default 5-years from date of issue) Written Statement I) Name of the finished product Ii) PRI responsible for the finished product Iii) Written assurance that no significant changes in the manufacturing process that will likely affect the product's quality or safety Iv) Available III PRI responsible for Relative the April PRI responsible for Relative manufacturer that produced the API manufacturer (PRI responsible for Relative for |     | FIELDS                       | " Down Martin File (DMF)  | ACTD                 | DMF      | CEP   | WHO PQ   |
| Suitability   Date of issue   Potential   Date of issue   Potential   Date of issue   Potential   Date of issue   Potential   Potent   | 1.  | Option in QUEST              | ii) Certificate of Suitability (CEP) iii) ASEAN Common Technical Dossier (ACTD)   | ACTD                 | DMF      | CEP   | ACTD**   |
| Date of issue  Date of expiry (if) yidefault. 5 years from date of issue)  Written Statement i) Name of the finished product iii) Written savarance that no significant changes in the manufacturing methods or processing have taken place following the granting of the certificate or its last revision and iv) Declaration from the API Manufacturer that the PRH and the NPRA shall be notified of any future change in the API Manufacturing process that will likely affect the product's quality or safety  3. Quality Overall Summary (QOS) ii) Table of Contents iii) Body of Data  4. S1. General information S1.1 International non-proprietary names/ INN: Chemical Abstracts Service  S1.2 Structural formula (relative and absolute chemistry) Molecular weight (base)  S1.3 Physico-chemical properties: General (Colour, physical form (powder, amorphous, crystalline, liquid, etc) ii) Solubility: - Solubility (mg/mil) - owe the physiological pH range (pH 1.2-6.3) in several buffered media - Solubility (mg/mil) - owe the physiological pH range (pH 1.2-6.3) in several buffered media - Solubility (mg/mil) - owe the physiological pH range (pH 1.2-6.3) in several buffered media - Solubility (mg/mil) - owe the physiological pH range (pH 1.2-6.3) in several buffered media - Solubility (mg/mil) - owe the physiological pH range (pH 1.2-6.3) in several buffered media - Solubility (mg/mil) - owe final API) Attach GB performed at 37 cm final API) Attach GMP certificate in S9 - Attach GMP ce       | 2.  |                              | A copy of the most current CEP including all annexes  |                      |          | ✓   |          |
| Date of expliry (By default 5 years from date of issue)  Written Statement  i) Name of the finished product ii) PRH responsible for the finished product iii) Written assurance that no significant changes in the manufacturing methods or processing have taken place following the granting of the certificate or its last revision and iv) Declaration from the API Manufacturer that the PRH and the NPRA shall be notified of any future change in the API specifications or in the manufacturing process that will likely affect the product's quality or safety  3. Quality Overall Summary (QOS) ii) Overall Summary iii) Overall Summary iii) Overall Summary iii) Table of Cortients iii) Body of Data  4. S1. General information S1. Chemical anames: CAS No: Chemical Abstracts Service  S1.2 Structural formula (relative and absolute chemistry) Molecular weight (base)  S1.3 General Properties i) Colour, physical form (powder, amorphous, crystalline, liquid, etc) ii) Colour, physical form (powder, amorphous, crystalline, liquid, etc) ii) Solubility; - Solubility (mg/ml) - over the physiological pH range (pH 1-2-6-8) in several buffered media - Solubility (mg/ml) - over the physiological pH range (pH 1-2-6-8) in several buffered media - Solubility (mg/ml) - in 250mL water at pH 1.2, 4.5 and 6.8 performed at 37°. iii) Pka, pH, partition coefficient (tog P), Melting point, hygroscopicity, isomerism, chirality and polymorphism  5 S2. Manufacture(s)  Name and address of manufacturer that produced the API (manufacturer responsible for release of the final API), - Attach GMP certificate in S9 - Challed Description of the Synthesis Route - 'GMP Compliance evidence is required for all manufacturer involved in each production steps, including intermediate manufacturer, milling and quality control testing intermediate manufacturer, milling and quality control testing intermediate manufacturer, milling and quality control tes |     | Suitability                  |   |                      |          |   |          |
| Written Statement i) Name of the finished product iii) Name of the finished product iii) Written assurance that no significant changes in the manufacturing methods or processing have taken place following the granting of the certificate or its last revision and iv) Declaration from the API Manufacturer that the PRH and the NPRA shall be notified of any future change in the NPRA shall be notified of any future change in the API Manufacturer that the PRH and the NPRA shall be notified of any future change in the API Manufacturer that the PRH and the NPRA shall be notified of any future change in the API Manufacturer that the PRH and the NPRA shall be notified of any future change in the API Manufacturer that the PRH and the NPRA shall be notified of any future change in the API Manufacturer that the PRH and the NPRA shall be notified of any future change in the API Manufacturer that produced the API (manufacturer (s) and the API Manufacturer (s) and the API Man |     |                              |   |                      |          | · ·   |          |
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| iii) PRH responsible for the finished product iii) Written assurance that no significant changes in the manufacturing methods or processing have taken place following the granting of the certificator or its last revision and iv) Declaration from the API Manufacturer that the PRH and the NPRA shall be notified of any future change in the API specifications or in the manufacturing process that will likely affect the product's quality or safety  3. Quality Overall i) Overall Summary Summary (QOS) iii) Table of Contents iii) Body of Data  4. S1. General Information S1.1 International non-proprietary names/ INN: Chemical names: Syronyms: CAS No. Chemical Abstracts Service  S1.2 Structure formula Molecular formula (relative and absolute chemistry) Molecular weight Molecular formula with Molecular weight (base)  S1.3 Physico-chemical properties: General Properties  S1.3 Physico-chemical properties: (i) Colour, physical form (powder, amorphous, crystalline, liquid, etc) (ii) Solubility: Solubility (mg/mi) - over the physiological pH range (pH 1.2-6.3) in several buffered media Solubility (mg/mi) - in 250mL water at pH 1.2, 4.5 and 6.8 performed at 370. Solubility (mg/mi) - in 250mL water at pH 1.2, 4.5 and 6.8 performed at 370. (ii) Pka, pH, partition coefficient ((pP), Melting point, hygroscopicity, isomenism, chirality and polymorphism  5 S2. Manufacture  S2.1 API (Manufacturer responsible for release of the final API) Attach GMP certificate in S9 - Attach S2.1 Affamufacturer in S10  S2.1.1 Other API (Manufacturer in strough and quality control testing intermediate manufacturer, milling and quality control testing intermediate manufacturer, milling and quality control testing intermediate manufacturing, micronization and milling sites;  S2.1.2 Name of State the name of synthesis route.  (If no specific name was assigned, please state as "Only / V A Constitute of Manufacturing formetalist unity purification step.  |     |                              |   |                      |          |   |          |
| iii) Written assurance that no significant changes in the manufacturing methods or processing have taken place following the granting of the certificate or its last revision and in the API specifications or in the manufacturing process that will littly affect the product's quality or safety  3. Quality Overall ii) Overall Summary (QOS) iii) Table of Contents iii Dedy of Data  4. 31. General information  S1.1 Nomenclature  S1.2 Structural formula molecular veight (base)  S1.2 Structural formula (relative and absolute chemistry)  Molecular veight (base)  S1.3 Physico-chemical properties:  Oceneral Ocour, physical form (powder, amorphous, crystalline, liquid, etc)  Industry (powder) iii) Solubility in the water, acid, alkali, common solvent Solubility (mg/ml) - over the physiological phr range Solubility (mg/ml) - partition coefficient (log P), Melting point, hygroscopicity, isomerism, chirality and polymorphism  5 S2.1 API Manufacturer (s) Name and address of manufacturer that produced the API Manufacturer (responsible for release of the final API).  Attach GMP certificate in S9 - Attach S2 1 Manufacturer in S10  S2.1 Other API Manufacturers involved in each production steps, including intermediate manufacturer, milling and quality cortoil testing sites.  S2.1.2 Name of State the name of synthesis route.  (If no specific name was assigned, please state as "Only / Y / One Route").  S2.2 Description of Manufacturing process, including intermediate manufacturing materials until purification steps, including from starting materials until purification steps, including intermediate manufacturing process.  |     |                              |   |                      |          |   |          |
| and the NPRA shall be notified of any future change in the API specifications or in the manufacturing process that will likely affect the product's quality or safety  3. Quality Overall Summary (QOS) ii) Table of Contents iii) Body of Data  4. S1.1 General information  S1.1 International non-proprietary names/ INN: Chemical names: Synonyms: CAS No: Chemical Abstracts Service  S1.2 Structural formula (relative and absolute chemistry) Molecular weight (base)  S1.3 General Properties  General Properties  S1.3 Physico-chemical properties: I Colour, Physical form (powder, amorphous, crystalline, liquid, etc); Solubility: - Solubility: - Solubility: - Solubility: - Solubility: - Solubility: - Solubility (mg/ml) - over the physiological pH range (pH 1.2-6.8) in several buffered media - Solubility (mg/ml) - in 250mL water at pH 1.2, 4.5 and 6.8 performed at 37°C iii) Pka, pH, partition coefficient (log P), Melting point, hygroscopicity, isomerism, chirality and polymorphism  5 S2. Manufacture  \$2.1.1 Other API Manufacturer responsible for release of the final API) Attach GMD certificate in S9 - Attach MC certificate in S9 - Attach MC certificate in S9 - Attach MC certificate manufacturer in s10  \$2.1.2 Name of Synthesis Route S2.1.2 Name of State the name of synthesis route.  (If no specific name was assigned, please state as "Only of Randal Curring materials until purification steps, including intermediate manufacturing, micronization and milling sites;  \$2.2.2 Description of Manufacturing materials until purification steps.   |     |                              | <ul> <li>Written assurance that no significant changes in the<br/>manufacturing methods or processing have taken place<br/>following the granting of the certificate or its last<br/>revision and</li> </ul>  |                      |          | <b>✓</b>  |          |
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| S1.1   Nomenclature   International non-proprietary names/ INN: Chemical names: Synonyms: CAS No: Chemical Abstracts Service   S1.2   Structure formula   Molecular formula   Molecular weight (base)    | 3.  |                              | ii) Table of Contents   | <b>*</b>             | ✓        | <b>✓</b>  | <b>✓</b> |
| Nomenclature  Chemical names: Synonyms: CAS No: Chemical Abstracts Service  S1.2 Structure formula Molecular weight Margen Margen Margen Margen Molecular weight Molecular weight Molecular weight Molecular weight Margen Margen Margen Margen Molecular weight Molecular weight Molecular weight Molecular weight Margen Margen Margen Margen Molecular weight Molecular  | 4.  | S1. General informa          | ation   |                      |          | L   |          |
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| Structure formula   Molecular weight   Molecular weight (base)   |     | Nomenclature                 | Synonyms:<br>CAS No:  | <b>√</b>             | ✓        | <b>✓</b>  | <b>✓</b> |
| Structure formula   Molecular weight   Molecular weight (base)   |     |                              |   |                      |          |   |          |
| General Properties  i) Colour, physical form (powder, amorphous, crystalline, liquid, etc) ii) Solubility: - Solubility: - Solubility (mg/ml) - over the physiological pH range (pH 1.2-6.8) in several buffered media - Solubility (mg/ml) - in 250mL water at pH 1.2, 4.5 and 6.8 performed at 37°C iii) Pka, pH, partition coefficient (log P), Melting point, hygroscopicity, isomerism, chirality and polymorphism  5 S2. Manufacture  S2.1 API Manufacturer(s)  S2.1.1 Other API Manufacture(s) involved  S2.1.1 Other API Manufacture(s) intermediate manufacturer, milling and quality control testing sites.  * GMP Compliance evidence is required for all manufacturer involved in API manufacturing process, including intermediate manufacturing, micronization and milling sites;  S2.2.2 Description of Manufacturing  i) Detailed Description of the Synthesis (step & process) from starting materials until purification step.   |     |                              | Molecular formula<br>Molecular weight   | ✓                    | ✓        | ~   | <b>✓</b> |
| S2.1 API Manufacturer(s)  Name and address of manufacturer that produced the API (manufacturer responsible for release of the final API).  - Attach GMP certificate in S9 - Attach S2.1 Manufacturer in S10  S2.1.1 Other API Manufacture(s) involved  Manufacturers involved in each production steps, including intermediate manufacturer, milling and quality control testing sites.  * GMP Compliance evidence is required for all manufacturer involved in API manufacturing process, including intermediate manufacturing, micronization and milling sites;  S2.1.2 Name of Synthesis Route  State the name of synthesis route. (If no specific name was assigned, please state as "Only One Route").  S2.2 Description of Manufacturing  in Detailed Description of the Synthesis (step & process) from starting materials until purification step.   |     | General                      | <ul> <li>i) Colour, physical form (powder, amorphous, crystalline, liquid, etc)</li> <li>ii) Solubility:         <ul> <li>Solubility in the <u>water</u>, acid, alkali, common solvent</li> <li>Solubility (mg/ml) - over the physiological pH range (pH 1.2-6.8) in several buffered media</li> <li>Solubility (mg/ml) - in 250mL water at pH 1.2, 4.5 and 6.8 performed at 37°C</li> </ul> </li> <li>iii) Pka, pH, partition coefficient (log P), Melting point,</li> </ul> | *                    | <b>√</b> | If there are any physicochemical & relevant API properties - not controlled by the CEP, e.g. solubilities and | *        |
| Manufacturer(s)  (manufacturer responsible for release of the final API).  - Attach GMP certificate in S9 - Attach S2.1 Manufacturer in S10  S2.1.1 Other API Manufacturers involved in each production steps, including intermediate manufacturer, milling and quality control testing sites.  * GMP Compliance evidence is required for all manufacturer involved in API manufacturing process, including intermediate manufacturing, micronization and milling sites;  S2.1.2 Name of Synthesis Route  State the name of synthesis route.  (If no specific name was assigned, please state as "Only One Route").  S2.2 Description of Manufacturing  i) Detailed Description of the Synthesis (step & process) from starting materials until purification step.   | 5   | S2. Manufacture              |   |                      |          |   |          |
| Manufacture(s) intermediate manufacturer, milling and quality control testing sites.  * GMP Compliance evidence is required for all manufacturer involved in API manufacturing process, including intermediate manufacturing, micronization and milling sites;  S2.1.2 Name of Synthesis Route (If no specific name was assigned, please state as "Only One Route").  S2.2 Description of Manufacturing intermediate manufacturing or control testing sites.  * GMP Compliance evidence is required for all manufacturing including intermediate manufacturing intermediate manufacturing intermediate as "Only one Route").   |     |                              | (manufacturer responsible for release of the final API) Attach GMP certificate in S9  | <b>*</b>             | <b>√</b> | <b>√</b>  | ~        |
| Synthesis Route (If no specific name was assigned, please state as "Only ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓   |     | Manufacture(s)               | intermediate manufacturer, milling and quality control testing sites.  * GMP Compliance evidence is required for all manufacturer involved in API manufacturing process, including  | *                    | ✓        | <b>✓</b>  | *        |
| Manufacturing from starting materials until purification step.   |     | Synthesis Route              | (If no specific name was assigned, please state as "Only One Route").   | ✓                    | ✓        | 1   | 1        |
| Process and II) Proposed starting material Process Controls III) Manufacturing scheme that indicates molecular formula; molecular weights; chemical structures of starting   |     | Manufacturing<br>Process and | from starting materials until purification step.  ii) Proposed starting material iii) Manufacturing scheme that indicates molecular formula;  | *                    | <b>√</b> |   |          |

|   |  | materials, intermediates and the API including stereochemistry; reagents, catalysts and solvents used in each step until purification step.  iv) Catalyst & solvents used (ICH class & limit).  v) Control strategy of solvents. (if skip testing, etc).  vi) Quantities of materials used, operating conditions and yield ranges in the description of the process.  vii) Recycling of filtrates/mother liquors (maximum holding time /maximum number of times the material may be recycled/Evidence / Data on the impurity levels).  viii) Final Steps (eg. Purification procedure)  ix) Commercial and Maximum batch size (batch range in kg)  x) Alternatives steps (no changes in the impurity profile)  xi) Re-processing; identified the process/step, method, frequency/limit of reprocess, same specification of the final API, no changes in the impurity profile, control of impurity levels, etc.  xii) Reworking: equivalent quality as original process, impurity profile, etc  xiii) Recovery of materials or solvents: step its introduced in the process, source, ratio (or range of mixtures) of fresh and recovered solvents, specifications (including justification of specification), impurity levels  xiv) Blending of batches; each batch tested & comply to final API specification |          |          |  | Please<br>attach<br>CPQ report |
|---|--|--|----------|----------|--|--------------------------------|
|   | S.2.2.1<br>Manufacturing<br>Process Flowchart                    | Manufacturing Process Flow that indicates molecular formula; molecular weights; chemical structures of starting materials, intermediates and the final API, including its stereochemistry; reagents, catalysts and solvents used in each step until purification step.   | *        | <b>*</b> |  | Please<br>attach<br>CPQ report |
|   | S2.3 Control of<br>Materials                                     | <ul> <li>i) Starting materials; Justification on selection of starting materials, Specification, Name &amp; address of each supplier, CoA of starting material issued by each of suppliers, CoA of starting material issued by the API manufacturer (for each of suppliers), Preparation of starting materials (Brief description), characterisation.</li> <li>ii) All materials (solvent, catalyst or reagent) used during manufacturing process [Specification, function and control strategy].</li> <li>iii) Others. e.g. benzene contamination, Quality of water etc.</li> </ul>   | *        | <b>*</b> |  | Please<br>attach<br>CPQ report |
|   | S.2.3.1a TSE Risk<br>Free Statement                              | Declaration; starting materials, reagents and all materials used to manufacture the API are of animal or human origin.     Document to demonstrate compliance on TSE/BSE requirement   | <b>*</b> | <b>*</b> | <b>*</b>                                 | <b>✓</b>                       |
|   | S2.4 Controls of<br>Critical Steps and<br>Intermediates          | Controls of Critical Steps - critical steps & process control including tests and acceptance criteria (with justification including experimental data).  Controls of Intermediates - List of Intermediates, specification, analytical procedure  | <b>*</b> | <b>*</b> |  | Please<br>attach<br>CPQ report |
|   | S2.5 Process<br>validation and/or<br>evaluation                  | Applicable to sterile API only   | <b>√</b> | <b>*</b> | YES, If CEP did not specify asterile API | Please<br>attach<br>CPQ report |
|   | S2.6<br>Manufacturing<br>Process<br>Development                  | Description and discussion of significant changes made to the manufacturing process and/or manufacturing site of the API used in producing non-clinical, clinical, scale-up, pilot and if available, production scale batches.     The development history of the manufacturing process as described in S 2.2     To state the date of changes.  | <b>*</b> | <b>*</b> |  | Please<br>attach<br>CPQ report |
| 6 | S3. Characterisatio  |  |          |          |  |                                |
|   | S3.1 Elucidation of<br>Structure and<br>other<br>Characteristics | i) Pharmacopoeia API:  - Comparison of spectral data between pharmacopoeia reference standard & API (If comparison is not available, assess as per non-pharmacopoeia API).  ii) Non pharmacopoeia API:  - Elemental analysis   | <b>√</b> | <b>√</b> | <b>*</b>                                 | <b>✓</b>                       |

|   |   | 1        | 1        | 1        |  |
|---|---|----------|----------|----------|--|
|   | <ul> <li>Infrared Spectrophotometry (IR)</li> <li>Ultraviolet absorption spectrum (UV)</li> <li>Mass Spectrometry</li> <li>Nuclear Magnetic Resonance Spectrometry (NMR)         <ul> <li>; ¹H-NMR, ¹³C-NMR</li> </ul> </li> <li>X-ray Diffraction</li> <li>Differential Scanning Calorimetry (DSC)</li> <li>Thermogravimetric analysis (TGA)</li> <li>Others</li> <li>Polymorphism</li> <li>Description &amp; characteristics of various polymorphic forms</li> <li>Potential for formation of the polymorphic forms</li> <li>Stability of the polymorphic forms</li> <li>Evidence to prove the commercial scale process consistently produce desired polymorphic forms</li> <li>iv) Particle size distribution</li> <li>y) Isomerism</li> </ul>   |          |          |          |  |
| S3.2 Impurities                             | Organic Impurities, Inorganic Impurities, Residual solvents, Genotoxic Impurities  - Possible carryover of impurities (during the synthesis and from the preparation of starting material and intermediates to the final API).  - Il possible potential impurities that may arise from the starting materials, route of synthesis and possible degradation products should be listed with name, structure, origin, LOD and LOQ and ranges of results in at least 3 consecutive batches as well as the proposed limits taking into account the requirements of ICH guideline.  - Any impurity greater than qualification threshold should be qualified and a rationale for establishing impurity limit/ acceptance criteria that includes safety considerations (eg. data from toxicology study, or batch analysis data of batches used in clinical trial with observed impurites content are equal or more than limit in the specification) should be provided.  - discussion on impurities that stated in another pharmacopeia (if applicable) | *        | ~        |          | Please<br>attach<br>CPQ report                         |
| 7 S4. Control of                            | Drug Substance/ API   |          |          |          |  |
| S.4.1 Specifica                             |   | *        | <b>*</b> | *        | (Shall be the same version as those stated on WHO CPQ) |
| S4.2 Analytica<br>Procedures                | The analytical procedures used for testing of API should be provided in sufficient details to enable reproducible testing by another laboratory     Compendial methods or appropriate information from the manufacturer   | <b>*</b> | ~        |          | Please<br>attach<br>CPQ report                         |
| S4.3 Validation<br>Analytical<br>Procedures | i) Analytical validation information, including experimental data for the analytical procedures used for testing the API  ii) Typical validation characteristics to be considered: - Selectivity - Precision(repeatability, intermediate precision and reproducibility) - Accuracy - Linearity - Range - Limit of Quantitation - Limit of detection - Robustness - System suitability iii) Non-compendial methods   | *        | *        |          | Please<br>attach<br>CPQ report                         |
| S4.4 Batch<br>Analysis                      | i) Batch analysis results of at least 3 batches ii) Information in table form e.g.: batch number, batch size, manufacturing date, manufacturing site and batch use (validation, stability, commercial etc.)   | <b>*</b> | ~        | <b>*</b> | <b>*</b>   |

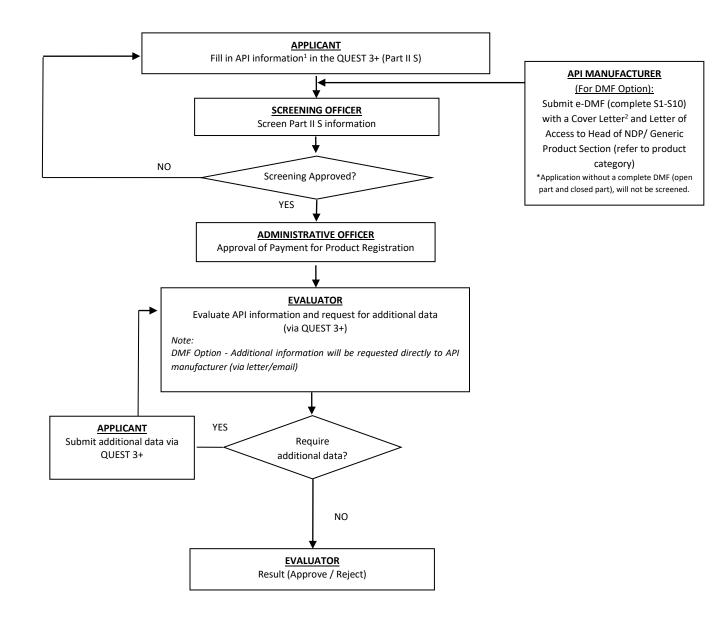
|    | S.4.4.1 Certificates of Analysis(COA) | From API Manufacturer (2 Batches)     From Product Manufacturer (2 Batches)   | ✓            | <b>✓</b>      | ✓   | <b>✓</b>   |
|----|---------------------------------------|---|--------------|---------------|---|--|
|    | S.4.5 Justification of Specification  | Discussion on inclusion/ omission of tests and analytical procedures     Justification on range of acceptance criteria set for inhouse tests  | <b>√</b>     | <b>√</b>      | (For non-monograph tests)   | Please<br>attach<br>CPQ report   |
| 8  | S5. Reference Stan                    | dards or Materials  |              |               |   |  |
|    | From API<br>Manufacturer              | i) Clearly stating:  - Official reference standard used, with batch number  - Primary reference standard used, with batch number  - Working standard used, with batch number  ii) For each Reference Standard should provide:  - CoA of Reference Standard  - IR spectra of reference standard  - Overlaid IR spectra comparing the primary & working standards.  - Reference standards available for impurities/related substances | <b>√</b>     | <b>*</b>      | 4   | ~  |
|    | From Product<br>Manufacturer          | i) Clearly stating:     Official reference standard used, with batch number     Primary reference standard used, with batch number     Working standard used, with batch number     Working standard used, with batch number     Overlaid Reference Standard     Reference Standard     Overlaid IR spectra comparing the primary & working standards.     Reference standards available for impurities/related substances          | <b>*</b>     | <b>*</b>      | *   | *  |
| 9  | S6.Container Closu<br>S.6 Container   | re System i) Description: primary packaging, secondary packaging,   |              |               |   |  |
|    | Closure System<br>(CCS)               | specifications,   | ✓            | ✓             | <b>✓</b>  | ✓  |
|    |                                       | <ul> <li>ii) IR spectra of primary packaging material, CoA, Functional secondary packaging components (If applicable),</li> <li>iii) Suitability: Moisture and light, compatibilty (e.g. Sorption or leeching)</li> </ul>   | ✓            | ✓             | YES, - If CEP did not specify a CCS or - CCS (in S.6) is different from CCS (in CEP)  | YES, - If different with CCS stated on WHO List of Prequalified APIs                         |
| 10 | S7. Stability                         |   |              |               | •   |  |
|    | Re-test Period<br>or shelf life       | Select (months) the proposed retest period based on stability study conclusion.   | ✓            | ✓             | <b>✓</b>  | ✓  |
|    | Storage Condition                     | State API storage condition (including special label, if needed) based on study condition of stability data provided (eg: "Store below 25 °C, protect from light").   | <b>√</b>     | ✓             | <b>✓</b>  | <b>*</b>   |
|    | Stability Data                        | Stress Testing Study     API batch details (eg: moisture, light, acidic, basic, oxidative and thermal stress conditions).   | <b>*</b>     | 1             |   |  |
|    |                                       | ii) Long Term Stability Data  - Minimum of 3 batches, (with recent results)  - Batch information (manufacturing date, site, batch size,  - Temperature/RH/Packaging  iii) Accelerated Stability Data  - Minimum of 3 batches, (with 6 months data)  - Batch information (manufacturing date, site, batch size)  - Temperature/RH/Packaging  iv) Post-approval Stability Protocol and Stability Commitment                           | <b>*</b>     | <b>*</b>      | YES, If CEP did not specify a retest period with specific storage condition (CCS and specific temperature). or - CCS (in S.6 & S7) is different from CCS (in CEP) | YES, - If retest period & storage condition are different with WHO List of Prequalified APIs |
| 11 | S8. Drug Master Fil                   | e (DMF)   |              |               |   | <u> </u>   |
|    |                                       | cturer may submit the DMF (both open part & closed part) as   | digital DMF/ | e-DMF with    | a Letter of acce  | ss (LOA) to  |
|    |                                       | ora.gov.my** or apiscreeningsub@npra.gov.my**. reach NPRA at the point of screening submission. Failure to do   | so may rocu  | ılt in submis | sion rejection  |  |
|    | ii) THE DIVIT SHOULD                  | Todon MI TA at the point of screening submission. Failule to do   | 30 may lest  | Version       | Sion rejection.   |  |

| Refer Part D of Guidance Note for full information |  |   |          |          |          |   |
|--|--|---|----------|----------|----------|---|
| DM   | IF Version No.   | Current DMF version number with effective date, &   |          | ✓        |          | (Shall be same a those sta on WH0 CPQ)                    |
|  | 3.1 Letter of<br>cess  | The letter of Access authorizes NPRA to refer to the DMF, in support of the application for a finished product. Thus, the Letter of Access must state the following:  - Name of DMF holder  - Name and address of API manufacturing facility  - DMF version number (for Applicant's part and Restricted part)  - Name of the finished product (product name, dosage form and product strength  - Local product registration holder (PRH) responsible for product registration  - A declaration that the local PRH and NPRA shall be notified of any changes in the API specification or in the manufacturing process that will likely affect the product's quality or safety  - Name and email address of person(s) to be contacted for additional information  - Signature of authorizing official |          | <b>√</b> |          | DMF Ver<br>number s<br>be the sa<br>as<br>Prequali<br>API |
| con<br>(inc  | .2 Name and<br>mplete address<br>cluding<br>one/fax no.) of<br>IF holder | S.8.2.1 Name of DMF Holder S.8.2.2 Address of DMF Holder S.8.2.3 Phone No. of DMF Holder S.8.2.4 Email address of Contact Person-DMF Holder   |          | *        |          | ~   |
| S9.  | . Certificate of G   | ood Manufacturing Practice (GMP) for API Manufacturer   |          |          |          |   |
|  | . GMP<br>rtificate   | S.9. Attach a valid copy of GMP Certificate S.9.2 GMP Issuing Body S.9.3 Date of Issue of Certificate of GMP S.9.4 Date of Expiry of Certificate of GMP   | <b>✓</b> | ✓        |          |   |
|  | 0. Other Support   |   |          |          |          |   |
| Sup  | 0. Other pporting cument   | <ul> <li>Provide attachment for S2.1 Manufacturer in S10.</li> <li>Official compendial monograph (if available)</li> <li>Other supporting documents*</li> </ul>   | ✓        | ✓        | ✓        | <b>✓</b>  |
|  | ditional<br>cuments for  | Declaration Letter from PRH (To state the changes if any) (refer template letter)   | ✓        | ✓        | <b>√</b> |   |
| App  | proved (API)   | Declaration Letter from API Manufacturer (refer template letter)  | ✓        | ✓        |          | ✓   |
|  |  | List of Additional Data  - Provide all the additional data which has been requested during previous submission (approved API)   | ✓        | ✓        | <b>√</b> | <b>✓</b>  |
|  |  | List of Approved Variation Application - Provide list of all variation application which was approved   | <b>✓</b> | ✓        | <b>✓</b> | ~   |
|  |  | Summary of other changes  | <b>✓</b> | ✓        | <b>✓</b> | <del>                                     </del>          |

Additional information may be requested if deemed necessary
For new applications & variation applications (with WHO prequalified API) shall be submitted as ACTD option (e.g., for variation, please submit MaV-3)

### API ADMINISTRATIVE PROCEDURE FOR NEW PRODUCT APPLICATION FOR **NEW DRUG PRODUCT (NDP) & GENERIC PRODUCT** (CONTAINING SCHEDULED POISONS: ALL DOSAGE FORMS)

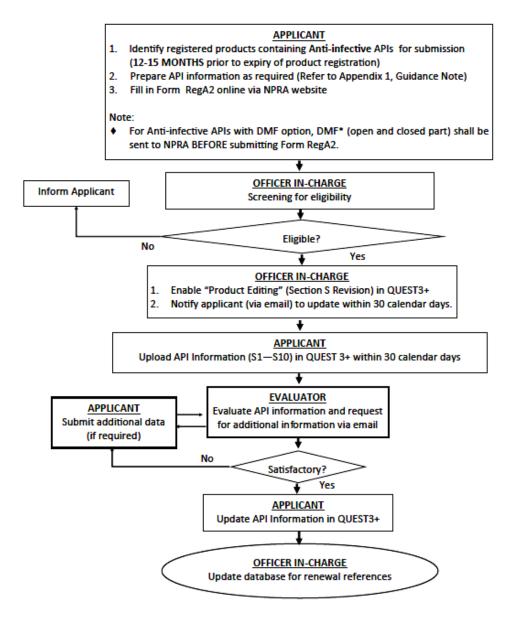
[Effective 2 Dec 2019]



#### Note:

- 1. Please Refer to Drug Registration Guidance Document (DRGD): Appendix 11: Regulatory Control of API, from website www.npra.moh.gov.my
- Template of Cover Letter is available on NPRA website

### ADMINISTRATIVE PROCEDURE FOR REGULATORY CONTROL OF ACTIVE PHARMACEUTICAL INGREDIENT (API) IN REGISTERED PRODUCT CONTAINING ANTI INFECTIVE API



#### Footnote:

- 1. \*CD copy of DMF (open and closed part) with a Letter of Access and Cover Letter should be sent to:
- \*Head of New Drug Product Section/ \*Head of Generic Medicines Section (\*refer to product category)
- 2. For registered products <u>not containing</u> anti-infective APIs, part II S information shall be kept by the PRH. It is not necessary to upload to Quest 3+ system.

### LIST OF ATYPICAL ACTIVE PHARMACEUTICAL INGREDIENT (API)

### **Examples of Atypical API:**

| No.      | Substance Name                                    |
|----------|---|
| 1        | Aluminum Hydroxide                                |
| 2        | Ammonium Chloride                                 |
| 3        | Ascorbic Acid                                     |
| 4        | Calcium carbonate                                 |
| 5        | Calcium chloride                                  |
| 6        | Cetylpyridinium Chloride                          |
| 7        | Glucose / Dextrose                                |
| 8        | Glycerol / Glycerin                               |
| 9        | Glycine   |
| 10       | L-Alanine   |
| 11       | L-Alanyl-L-Glutamine                              |
| 12       | L-Arginine  |
| 13       | L-Aspartic Acid                                   |
| 14       | L-Cysteine  |
| 15       | L-Glutamic Acid                                   |
| 16       | L-Glutathione                                     |
| 17       | L-Histidine                                       |
| 18       | L-Isoleucine                                      |
| 19       | L-Leucine   |
| 20       | L-Lysine Acetate                                  |
| 21       | L-Methionine                                      |
| 22       | L-Phenylalanine                                   |
| 23       | L-Proline   |
| 24       | L-Serine  |
| 25       | L-Threonine                                       |
| 26       | L-Tyrosine  |
| 27       | L-Valine  |
| 28       | Magnesium Carbonate                               |
| 29       | Magnesium Chloride                                |
| 30       | Magnesium Hydroxide                               |
| 31       | Magnesium Oxide                                   |
| 32       | Magnesium Sulphate                                |
| 33       | Malic Acid  |
| 34       | Mannitol Madii an Ohain Trimbaarida               |
| 35       | Medium Chain Triglyceride  Olive Oil              |
| 36<br>37 | Potassium Chloride                                |
| 38       | Potassium Chloride Potassium Dihydrogen Phosphate |
| 39       | , ,   |
| 40       | Potassium Phosphate Sodium Acetate                |
| 40       | Sodium Acetate Sodium Bicarbonate                 |
| 42       | Sodium Chloride                                   |
| 43       | Sodium Chloride  Sodium Glycerophosphate          |
| 44       | Sodium Hydroxide                                  |
| 45       | Sodium Lactate                                    |
| 46       | Sodium Phosphate                                  |
| TU       | Outuin 1 nospitate                                |

| 47 | Soybean Oil    |
|----|----------------|
| 48 | Zinc Acetate   |
| 49 | Zinc Carbonate |
| 50 | Zinc Chloride  |
| 51 | Zinc Citrate   |
| 52 | Zinc Gluconate |
| 53 | Zinc Oxide     |
| 54 | Zinc Sulfate   |

Note: This list is not meant to be exhaustive and will be reviewed from time to time.

# SUMMARY OF REQUIRED DOCUMENTS FOR ATYPICAL ACTIVE PHARMACEUTICAL INGREDIENT (API) INFORMATION

|          | Section S / Field  | Mandatory (✓)                   | Remarks   |
|----------|--|---------------------------------|---|
| S1.1     | Nomenclature   | ✓                               |   |
| S1.2     | Structure formula  | ✓                               |   |
| S1.3     | General Properties   | ✓                               |   |
| S2.1     | API Manufacturer(s)  | ✓                               |   |
| S2.1.1   | Other API Manufacture(s) involved  | √ (if any)                      |   |
| S2.1.2   | Name of Synthesis Route  | √ (if any)                      |   |
| S2.2     | Description of Manufacturing Process   | ✓                               | Brief description for:                                    |
|          | and Process Controls   | (Brief description)             | <ul><li>Manufacturing process</li><li>Materials</li></ul> |
| S.2.2.1  | Manufacturing Process Flowchart  | ✓                               |   |
| S2.3     | Control of Materials   | Non-Mandatory                   | Should statement 'refer to                                |
| S.2.3.1a | TSE Risk Free Statement  | ✓                               | restricted part' is given,                                |
| S2.4     | Controls of Critical Steps and Intermediates   | Non-Mandatory                   | information will be requested                             |
| S2.5     | Process validation and/or evaluation   | Non-Mandatory                   |   |
| S2.6     | Manufacturing Process Development  | Non-Mandatory                   |   |
| S3.1     | Elucidation of Structure and other Characteristics   | Non-Mandatory                   |   |
| S3.2     | Impurities   | Non-Mandatory                   |   |
| S.4.1    | API Specification from:  | <b>√</b>                        |   |
|          | i) API Manufacturer <b>and</b>   |                                 |   |
|          | ii) Finished Product Manufacturer  |                                 |   |
| S4.2     | Analytical Procedures  | Non-Mandatory                   |   |
| S4.3     | Validation of Analytical Procedures  | Non-Mandatory                   |   |
| S4.4     | Batch Analysis   | Non-Mandatory                   |   |
| S.4.4.1  | Certificates of Analysis (COA) (2 batches each) from: i) API Manufacturer <b>and</b> ii) Finished Product Manufacturer | ~                               |   |
| S.4.5    | Justification of Specification from: i) API Manufacturer <b>and</b> ii) Finished Product Manufacturer                  | <b>√</b>                        |   |
| S5       | Reference Standards or Materials from: i) API Manufacturer <b>and</b> ii) Finished Product Manufacturer                | <b>√</b>                        | If not available, please provide justification            |
| S.6      | Container Closure System (CCS)   | ✓                               | Description only  |
| S7       | Stability  | Non-Mandatory                   |   |
| S9       | GMP Certificate  | GMP Certificate Or              | Refer to template Declaration                             |
|          |  | Declaration on                  | on Quality of AAPI_V1                                     |
|          |  | Quality Management<br>System by | provided on NPRA Website                                  |
|          |  | Competent Person                |   |
| S10      | Other information  | <b>√</b>                        | Additional information if deemed necessary                |