REGULATORY DOCUMENTS IN THE PHARMACEUTICAL INDUSTRY

Investigational New Drug Application (IND)

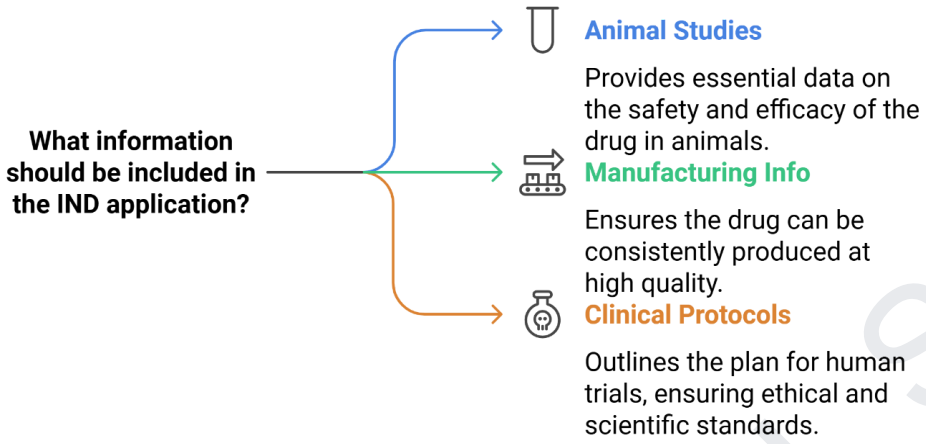
It is an application from a clinical research sponsor to the Food and Drug Administration (FDA) for authorization to administer an investigational drug to humans.

INDs are classified into three types:

1. An investigator IND is submitted by a physician who begins and investigates the clinical trial drug and manages its administration or dispensing.
2. Emergency Use IND allows the FDA to authorize the use of an investigational drug in an emergency that does not allow for the submission of an IND in compliance with 21 CFR.
3. Treatment INDs are submitted for investigational drugs that show promise in clinical testing for serious, life-threatening illnesses.

IND applications must include information in three broad areas:

1. Animal Pharmacology and Toxicology Studies
2. Manufacturing Information
3. Clinical Protocols and Investigational New Drug Information



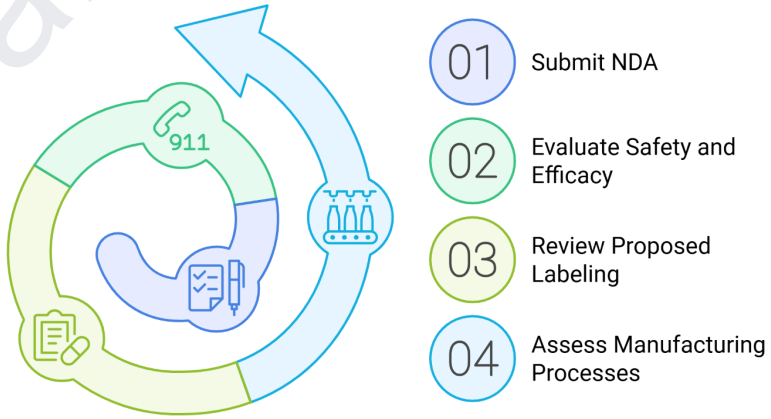
Once the IND is submitted, the sponsor must wait 30 days before beginning any clinical trials. The FDA examines the IND for safety to ensure that research subjects are not exposed to an unwanted risk.

New Drug Application (NDA)

The NDA application formally proposes that the FDA approve a novel drug for sale and marketing in the United States. The NDA contains the data collected during an Investigational New Drug (IND)'s animal research and human clinical trials.

The NDA's objectives are to give the FDA reviewer enough details to enable them to make the following major decisions.

- Whether the medicine is safe and effective in its intended use(s), and whether the benefits outweigh its risks.
- Determine whether the drug's proposed labelling meets your needs and what it should include.
- Whether the drug's manufacturing processes and quality control measures are sufficient to maintain the drug's identity, strength, quality, and purity.



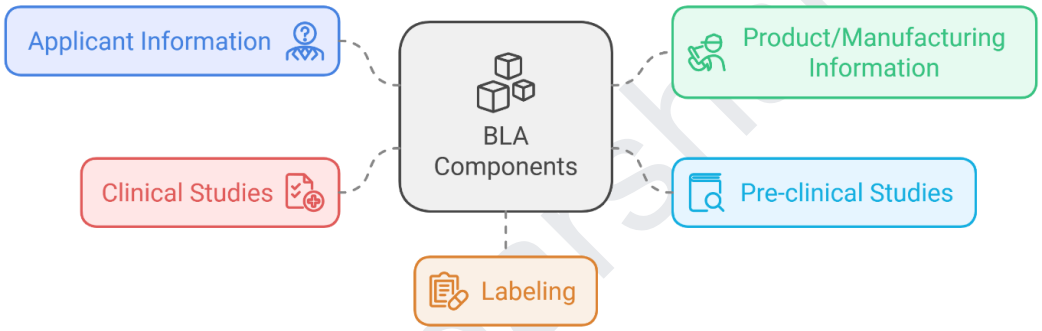
Biologics License Applications (BLA)

The Biologics License Application (BLA) is an application to sell or transport a biologic product into the United States.

A BLA is submitted by any legal person or company engaged in manufacturing, or by a license holder who accepts ownership of products and sets up standard compliance.

The BLA contains the following:

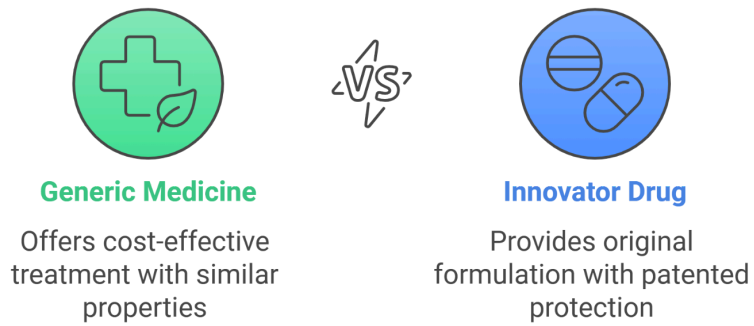
- Applicant information
- Product/Manufacturing information
- Pre-clinical studies
- Clinical studies
- Labeling



Abbreviated New Drug Application (ANDA)

An abbreviated new drug application (ANDA) was filed with the FDA for testing and potential approval of a generic medicine product. If accepted, a company can manufacture and market the generic drug product as a safe, effective, and less costly alternative to the brand-name drug it references.

A generic medicine product is like an innovator drug product in terms of dosage form, strength, method of treatment, quality, performance properties, and intended application.



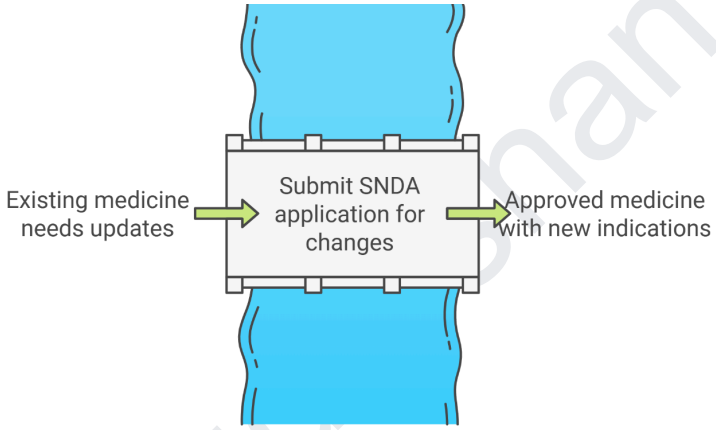
Generic drug applications are known as "abbreviated" as they don't usually need to include both preclinical (animal) and clinical (human) evidence to show safety and efficacy.

Subsequent New Drug Application (SNDA)

It is also known as the Supplemental New Drug Application (sNDA).

SNDA application sent to the United States Food and Drug Administration (FDA) seeking approval of a previously approved and marketed new medicine. This form is for requesting changes to an existing medicine, such as a new indication, dose regimen, or formulation.

The goal of a Subsequent New Drug Application (SNDA) is to demonstrate that a new medicine is safe and effective for its intended use. When a medicine is already approved for single use and the company wishes to expand its usage to other indications, the FDA demands an SNDA.

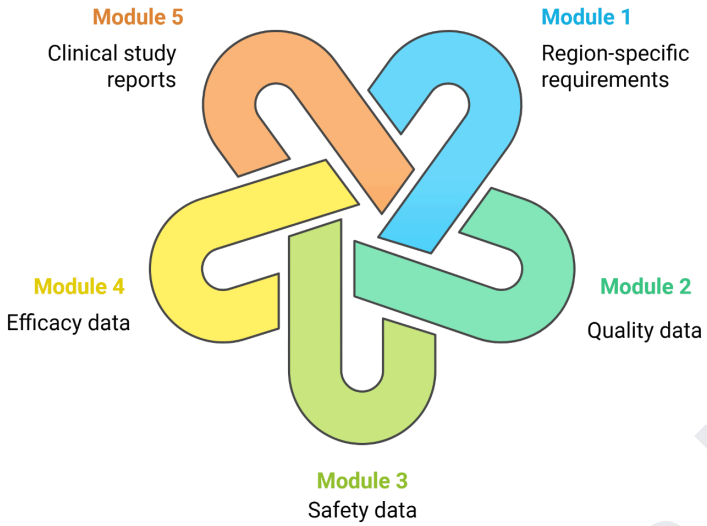


Obtain FDA Approval for Medicine Changes

Common Technical Document (CTD)

The document compiles all Quality, Safety, and Efficacy information in a common format known as CTD - Common Technical Document. It has transformed regulatory review processes, resulting in harmonized electronic submissions and the introduction of best review practices.

The CTD is divided into five modules. Module 1 is region-specific, while Modules 2, 3, 4, and 5 are designed to be universal to all regions. In the EU, Japan, and the United States, new drug applications must be submitted in the CTD format.



Module 1: Gives administrative and prescription information.

Module 2: Summaries of common technical documents.

Highlights the information to be included in the dossier's quality (Module 3), nonclinical (Module 4), and clinical (Module 5) modules.

Module 3: Quality

Defines the format and organization of the chemical, pharmaceutical, and biological data required for the application.

Module 4: Safety (nonclinical study reports)

Defines the format and organization of nonclinical (pharmaco-toxicological) data important to the application.

Module 5: Efficacy (clinical study reports)

Explains the structure and organization of the clinical data required for the application.

Electronic Common Technical Document (eCTD)

The eCTD is the standard format for filing applications, changes, supplements, and reports to the FDA.

Electronic submission criteria will be optional, but recommended in the following categories:

- Noncommercial INDs
- Submissions for blood and its components, including source plasma
- Submissions of Type III Master Files

REFERENCE

1. Investigational New Drug (IND) Application - FDA
2. New Drug Application (NDA) - FDA
3. Biologics License Applications (BLA) Process (CBER) - FDA
4. Abbreviated New Drug Application (ANDA) - FDA
5. Subsequent New Drug Application (SNDA)
6. Common Technical Document (CTD) - ICH
7. Common Technical Document (CTD) - TGA
8. Electronic Common Technical Document (eCTD) - FDA