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BULETIN PENAWAR

HOSPITAL SULTANAH AMINAH JOHOR BAHRU



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HOSPITAL SULTANAH AMINAH JOHOR BAHRU**

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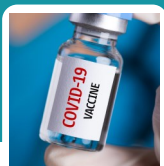
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COVID-19 VACCINE

By Wong Zhi Sing

Introduction

- Vaccines contain antigens that serve to stimulate the body's immune system and form immunity for specific infectious diseases.
- Since the beginning of the pandemic, various efforts have been carried out globally to develop COVID-19 vaccines for us to curb this pandemic and one of the best ways to protect our society from COVID-19.
- Malaysia's strategy is to ensure everyone in Malaysia can get the immunization in the fastest possible time.

What is COVID-19 vaccine?

- Used to stimulate the immune system so that our body would be able to react against the COVID-19 infection.

How was the COVID-19 vaccine able to be developed so quickly?

- Shortly after the virus genetic code was shared by researchers from China in January 2020, vaccine development efforts took place intensively at the global level.
- The rapid development of the vaccines is also the result of previous studies on pathogens that have triggered pandemics, epidemics and endemics such as the Nipah Virus, SARS and Middle East Respiratory Syndrome (MERS).

Timeline for Malaysia's vaccine acquisition

- Dec 2019 • COVID-19 virus detected
- Jan 2020 • China distributed genetic code for COVID-19
- Apr 2020 • Science diplomacy approach was mobilised by MOH-MOSTI-MFA
- Oct 2020 • The establishment of the Special Committee for Ensuring Access to Covid-19 Vaccine Supply (JKJAV)
- Dec 2020 • Prime Minister announced that Malaysia has gained access to vaccines for 82.8% population of Malaysia
- Jan 2021 • The Public Accounts Committee was satisfied with the COVID-19 national vaccine procurement strategy
- Feb 2021 • Malaysia receives vaccine
(21/2) Malaysia has received its first shipment of Pfizer-BioNTech's Covid-19 vaccine
(27/2) The arrival of Sinovac's COVID-19 vaccine
- 17 Mar 2021 • PM Tan Sri Muhyiddin Yassin has become the first person to be vaccinated. (Pfizer-BioNTech)

Source : (JKJAV) 2021

Methods for vaccine registration



Types of vaccine in Malaysia

LINDUNG DIRI,
LINDUNG SEMUA.

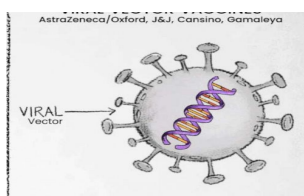
Vaccine	Pfizer	AstraZeneca	Sinovac	CanSinoBio
Type of vaccines	mRNA	Viral vector	Inactivated virus	Viral vector
Number of doses	2	2	2	1
Manufacturer country	U.S	U.K	China	China
Storage temperature	-75	2– 8	2– 8	2– 8
% of populations	50	20	18.75	10.90
Countries that have use the vaccine	USA, Singapore, UK, Bahrain, Canada, Mexico, Switzerland, The European Union	UK, South Africa, Ukraine, Brazil, The European Union, Canada, India	China, Indonesia, Turkey, Chile, Hong Kong, Brazil. Cambodia	China, Mexico, Pakistan

Source : JKJAV (2021)

How Vaccine work?

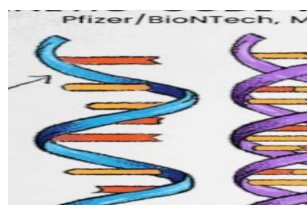
Viral Vector

Use a harmless virus (adenovirus),
It then instructs our cell to make S protein which is then displayed on the cell surface.
It triggers our immune system to create antibody to fight against covid-19 virus.



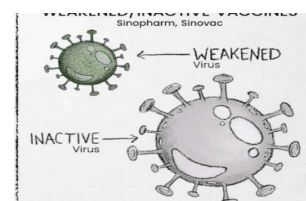
mRNA

Use a genetic material (genetically engineered mRNA).
Our immune cells make the S protein which will then display on cell surfaces. This causes body to create antibodies to protect the body against infection.



Inactive virus

Contain the killed SARS-coV-2 virus.
The killed virus is recognized by the immune system to trigger a response without causing illness.
This response builds immune memories, so that body can fight against virus.



FAQs

1. Should I get vaccinated if I already had covid-19

Yes, because you can become infected more than once.

2. Do I have to pay for vaccine?

No.

3. Why do I need 2 shot of vaccine?

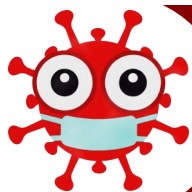
The first shot gets your body ready. Second shot is to ensure you have full protection.

4. Where can we get the latest information on Covid-19 vaccines?

Can refer to WHO, CDC, and FDA website

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COVID-19 VACCINE SIDE EFFECTS

By Nurizzati Zafirah Binti Nazri

COMMON SIDE EFFECTS

After getting COVID-19 vaccine, you may experience some side effects, which are the normal signs that your body is building protection. But they should go away in a few days and some people may have no side effects.

Common side effects

On the arm where you got the shot:

- pain
- redness
- swelling



Throughout the rest of your body:

- tiredness
- headache
- muscle pain
- chills
- fever
- nausea



Helpful tips

- Apply a clean, cool, wet washcloth over the area.
- Use or exercise your arm.



- Drink plenty of fluids.
- Dress lightly
- Take painkiller if needed



RECENT REPORTS OF ADVERSE EVENTS

Very Rare Side Effects of Vaxzevria (formerly COVID-19 Vaccine AstraZeneca)

- Unusual blood clots with low blood platelets are listed as very rare side effects of Vaxzevria (formerly COVID-19 Vaccine AstraZeneca).

April 4, 2021

- A total of 0.0007% cases of cerebral venous sinus and splanchnic vein thrombosis were reported to EudraVigilance. Around 34 million people had been vaccinated in the European Economic Area (EEA) and UK by this date.

Source : ("AstraZeneca COVID-19 vaccine, EMA", 2021)

- The Pharmacovigilance Risk Assessment Committee (PRAC) noted that the blood clots occurred in veins of the brain (cerebral venous sinus thrombosis, CVST) and the abdomen (splanchnic vein thrombosis) and in arteries, with low level of blood platelet and sometimes causes bleeding.

When to seek doctor ? :

If patient has the following symptoms;

- Shortness of breath
 - Chest pain
 - Leg swelling
 - Persistent abdominal (belly) pain
 - Neurological symptoms;
- ⇒ Severe and persistent headaches, blurred vision, tiny blood spots under the skin.

Serious adverse effects CoronaVac vaccine by Sinovac Biotech

April 25, 2021

- Reported by FDA, 193 out of 983,612 individual in Philippines who got their first CoronaVac vaccine injection have experienced serious adverse effects.
- Serious adverse reactions includes chest pain, nasal congestion and allergic reactions.
Source ; CDC Vaccine 2021

Very small cases of anaphylaxis reaction by Pfizer-BioNTech vaccine

December 14–23, 2020

- 21 cases of anaphylaxis were detected by Vaccine Adverse Event Reporting System (VAERS) after administration of a reported 1,893,360 first doses of the Pfizer-BioNTech COVID-19 vaccine (11.1 cases per million doses);
- 71% of these occurred within 15 minutes of vaccination.
Source ; CDC Vaccine 2021

Small cases of anaphylaxis reaction of Moderna COVID-19 vaccine

December 21, 2020–January 10, 2021

- 10 cases of anaphylaxis reaction were detected by VAERS after administration of a reported 4,041,396 first doses of Moderna COVID-19 vaccine (2.5 cases per million doses administered).
- In nine cases, onset occurred within 15 minutes of vaccination.
Source ;CDC Vaccine 2021

Update on Adverse Events Janssen (Johnson & Johnson) COVID-19 Vaccine

April 13, 2021

- CDC and FDA recommended a pause in the use of the Janssen COVID-19 vaccine after reports of 6 rare and severe type of blood clot combined with low blood platelet levels.

April 23, 2021

- Resuming vaccination after a discussion of the benefits and risks.
Source ; CDC Vaccine 2021

What to Do if You Have an Allergic Reaction After Getting A COVID-19 Vaccine?

If you had a severe allergic reaction

- CDC recommends that you should not get a second shot of that vaccine.

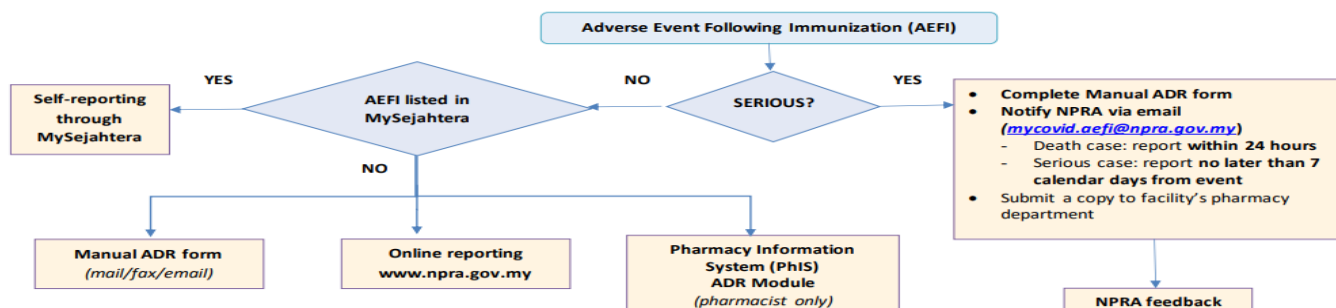
If you had a non-severe allergic reaction

- If you had immediate allergy reaction (happens within 4 hours), you should not get a second shot of that vaccine, even if it was not severe enough to require emergency care.

Covid Arm - a red, itchy, swollen, or painful rash

- If you experience "COVID arm" after getting the first shot, you should still get the second shot at the recommended interval if the vaccine you got needs a second shot.
- If the rash is itchy, take an antihistamine.
- If it is painful, take a pain medication like acetaminophen or NSAID if no contraindication.

How to report the Adverse Event Following Immunization (AEFI) ?

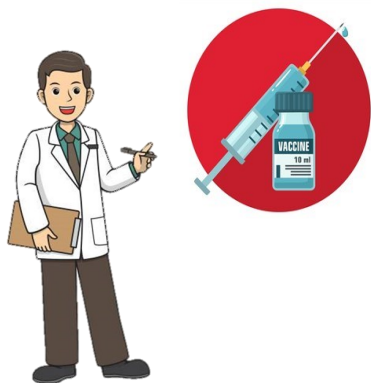


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- Allergic Reactions Including Anaphylaxis After Receipt of the First Dose of Pfizer-BioNTech COVID-19 Vaccine — United States, December 14–23, 2020. Available from <https://www.cdc.gov/mmwr/volumes/70/wr/mm7002e1.htm>

Prepared by Mohammad Shahrin Bin Safar

PENERIMAAN STOK VAKSIN DARIPADA PEMBEKAL



PELANTIKAN PEGAWAI PENERIMA

Ketua Jabatan hendaklah melantik secara bertulis Pegawai Penerima yang bertanggungjawab untuk menerima dan memeriksa barang-barang yang diterima selaras dengan Tatacara Pengurusan Stor (TPS).

Pegawai Farmasi merupakan pegawai penerima di peringkat fasiliti. Pegawai Penerima bertanggungjawab untuk menjalankan pemeriksaan rangkaian sejuk di fasiliti penerima.

PENGENDALI VAKSIN

Pegawai dan anggota perlu mempunyai pengetahuan asas dalam pengurusan stor terutama pengendalian produk rangkaian sejuk.

Anggota terdiri daripada Pegawai Farmasi, Pegawai Stor, Matron, Ketua Jururawat, Penolong Pegawai Farmasi, Penolong Pegawai Perubatan dan lain-lain anggota dengan jawatan yang sesuai.

PERATURAN PENERIMAAN



- ⇒ Barang-barang yang diterima perlu dibuat pemeriksaan dengan teliti bagi memastikan ia menepati spesifikasi yang ditetapkan.
- ⇒ Bagi barang-barang teknikal, penerimaan dan pemeriksaan hendaklah dilakukan oleh pegawai-pegawai yang memiliki kepakaran.
- ⇒ Tempoh masa untuk pemeriksaan produk rangkaian sejuk mesti disegerakan kerana produk adalah sensitif kepada suhu dan masa.

LANGKAH-LANGKAH PENERIMAAN

1. Butiran di dalam dokumen yang sah hendaklah disemak bagi memastikan barang-barang yang diterima adalah betul.
2. Semak keadaan fizikal *cold box*, spesifikasi, bacaan indikator pemantauan suhu yang dibekalkan bersama produk semasa penerimaan, nama produk, kuantiti dan nombor kelompok.
3. Pengesahan penerimaan perlu dibuat oleh pegawai penerima.
4. Penerimaan perlu direkodkan dengan segera ke dalam Pharmacy Information System and Clinic Pharmacy System (PhIS - CPS) dan Vaccine Management System VMS.

1. Tuntutan berkaitan penerimaan barang-barang yang rosak, tidak cukup kuantiti, berkualiti rendah, kehilangan dan sebagainya hendaklah merujuk kepada syarat-syarat perjanjian kontrak/ sebut harga dan AP yang berkuatkuasa.
2. Hanya vaksin yang telah mempunyai sijil *Lot Release* boleh digunakan untuk vaksinasi
3. Vaksin yang tidak mematuhi keperluan *Lot Release* perlu disimpan, dilabel dan dikuarantin pada suhu penyimpanan yang disarankan oleh pengilang sehingga dikembalikan kepada pembekal.
4. Semua stok yang diterima hendaklah direkodkan oleh Pegawai Stor dalam Kad Daftar Stok (KEW.PS-3) melalui sistem PhIS & CPS atau mana-mana sistem inventori yang digunakan oleh fasiliti.





PENYIMPANAN STOK VAKSIN

JENIS-JENIS PERALATAN PERUBATAN BAGI MENYIMPAN VAKSIN COVID-19

Vaksin perlu disimpan mengikut arahan penyimpanan pada label produk bagi menjamin kualiti sepanjang agihan vaksin. Jangka hayat produk adalah berbeza mengikut suhu simpanan produk dan tempoh dedahan. Fasilitas juga perlu peka dengan spesifikasi peralatan yang digunakan untuk menyimpan dan memantau suhu simpanan produk. Spesifikasi adalah berbeza mengikut jenama dan model yang diperolehi.



SUSUN ATUR

PENYIMPANAN

Vaksin yang belum mendapat kelulusan *Lot Release* perlu disimpan secara berasingan.

Stok disimpan dan disusun mengikut *First-Expiry-First-Out* (FEFO).

Jika produk mempunyai tarikh luput yang sama, produk perlu disusun mengikut sistem *First-In-First-Out* (FIFO).

ULTRA LOW TEMPERATURE FREEZER (ULTF)

Ditempatkan di Pusat Simpanan Vaksin (PSV) bagi penyimpanan vaksin COVID-19 bersuhu -60°C hingga -90°C



Medical B



Eppendorf

TOP LOADING REFRIGERATOR

Ditempatkan di lokasi PPV untuk penyimpanan vaksin pada suhu 2°C – 8°C



Medical B



Schinkels

COLD BOX / CARRIER BOX

Digunakan untuk pengangkutan vaksin dari PSV ke PPV



Medical B



MEDIREF

TEMPERATURE DATA LOGGER

Digunakan untuk merekod suhu di dalam cold box sewaktu penghantaran bagi memastikan vaksin disimpan pada suhu yang ditetapkan pengeluar



Haier



TEMPSEN



DeltaTrak

PEMANTAUAN SUHU VAKSIN

- ⇒ Bacaan perlu direkodkan 2 kali sehari. Waktu yang disyorkan adalah pada jam 8.00 pagi dan 4.00 petang termasuk hujung minggu dan hari kelepasan am. Walau bagaimanapun, ia juga bergantung pada waktu operasi di fasiliti atau unit.
- ⇒ Sekiranya berlaku suhu di luar julat, penerangan dan tindakan yang diambil perlu dicatatkan di belakang carta suhu.



Proses ini perlu dilaksanakan melalui sistem PhIS & CPS atau sistem inventori yang digunakan dan VMS. Bagi fasiliti yang tidak mempunyai sistem PhIS & CPS, hanya VMS yang akan digunakan untuk memantau pergerakan dan penggunaan stok. Pengagihan produk rangkaian sejuk untuk kegunaan pesakit pula melibatkan penghantaran ke PPV atau stesen pemberian suntikan vaksin. Oleh yang demikian, proses pengagihan produk perlu dipastikan agar suhu boleh kekal berada dalam julat yang ditetapkan sekurang-kurangnya sehingga proses penerimaan lengkap.

PERMOHONAN STOK OLEH PUSAT PEMBERIAN VAKSIN (PPV)

Semua permohonan stok hendaklah dibuat secara atas talian menggunakan KEW.PS-7 melalui PhIS & CPS atau mana-mana sistem inventori berkomputer yang ditetapkan PTJ. Borang KEW.PS-7 hendaklah dikemukakan kepada Stor Pengeluar untuk kelulusan sebelum pengeluaran dapat dibuat sekiranya unit tidak mempunyai PhIS & CPS.



Administrasi Vaksin

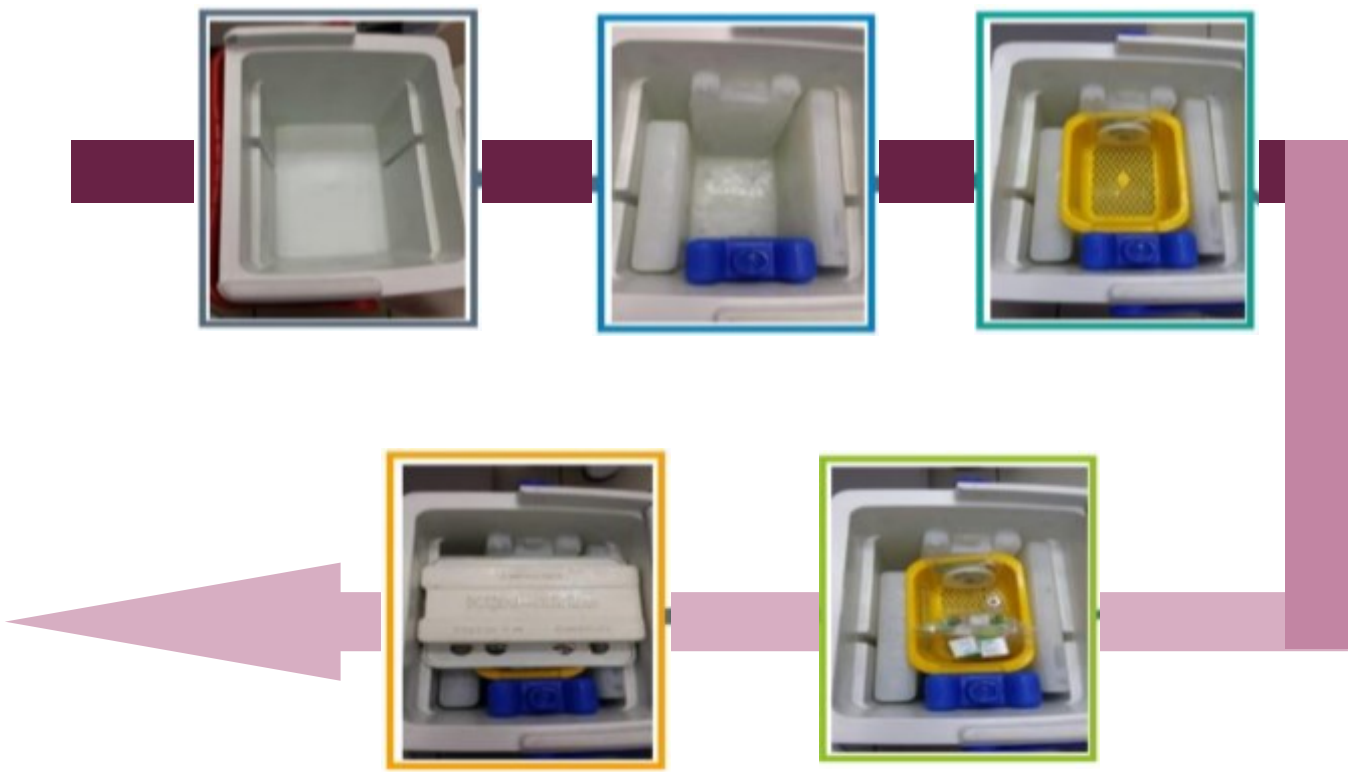
Bilangan dos yang perlu diambil oleh penerima vaksin bergantung kepada jenama atau produk vaksin. Sekiranya dos perlu diberikan sebanyak 2 kali dalam tempoh tertentu, pemberian dos pertama dan kedua perlulah daripada jenama vaksin yang sama. Pastikan kod bar VMS diimbas selepas proses vaksinasi di pusat vaksin dan pelaporan kesan sampingan akan dilaksanakan melalui Sistem My Sejahtera.

PENGELUARAN STOK OLEH PUSAT SIMPANAN VAKSIN (PSV)

- Pengeluaran stok mesti dilakukan oleh Pegawai Pelulus Pengeluaran Stok yang dilantik oleh Ketua Jabatan.
- Stok vaksin hendaklah dikeluarkan mengikut sistem FIFO atau FEFO.
- Pengeluaran fizikal vaksin mestilah mengikut kuantiti dan nombor kelompok yang diluluskan oleh pegawai pelulus.
- Sekiranya vaksin datang berasingan daripada diluen, pengeluaran vaksin mestilah dibuat bersama diluen yang diperolehi oleh KKM. Fasiliti diingatkan untuk tidak menggunakan diluen selain yang telah ditetapkan oleh KKM.
- Pengeluaran stok perlu direkodkan di dalam sistem PhIS & CPS dan VMS.
- Semua permohonan yang dikemukakan secara manual perlu direkod dan dikeluarkan menggunakan sistem PhIS & CPS dan VMS.
- Anggota perlu memastikan rangkaian sejuk dikekalkan semasa pengagihan vaksin.
- Vaksin perlu dibungkus dan dilabel dengan lengkap sebelum agihan.

PENERIMAAN STOK VAKSIN OLEH (PPV)

Rangkaian sejuk perlu dikekalkan semasa pengedaran dan pemindahan produk dengan menggunakan *cold box*, *data logger*, pek ais, bahan penebat seperti *bubble wrap*.



Tatacara Susunan Pek Ais Di Dalam Cold Box



Proses pengambilan stok vaksin

Reference:

1. Garis Panduan Pengurusan Produk Vaksin COVID-19 di Fasilitas Kesehatan (Versi 1 2021)

Pusat Pembekalan Ubat Susulan Setempat, Hospital Sultanah Aminah Johor Bahru

PPUSS HSAJB



Poster Promosi Scan & Collect

PPUSS HSAJB telah dimulakan pada 1 Disember 2020, bertempat di tempat parkir kereta berhadapan Jabatan Kecemasan, kira-kira 300m dari Poliklinik. Pesakit yang mengambil ubat di PPUSS HSAJB adalah pesakit yang menggunakan servis **Scan & Collect**. Pada awalnya, servis ini diwujudkan untuk mengurangkan bilangan pesakit yang datang ke farmasi pada waktu puncak untuk mengambil ubat ulangan lebih-lebih lagi sewaktu pandemik COVID-19 ini di mana penjarakan sosial adalah diwajibkan.

Pesakit memesan ubat 7 hari bekerja sebelum tarikh yang tertera di belakang surat ubat melalui telefon pintar dengan mengimbas QR-code yang diberikan, mengisi maklumat yang diperlukan dan mengambil ubat mereka di PPUSS HSAJB mengikut tarikh berdasarkan pengesahan melalui email yang dihantar oleh pihak farmasi. Promosi perkhidmatan **Scan & Collect** melibatkan kerjasama dengan Unit Promosi dan Unit ICT HSA. Ini termasuk meletakkan bunting dan poster di sekeliling kawasan hospital; penunjuk arah ke PPUSS HSAJB, promosi di laman web dan media sosial hospital; dan Peta Google untuk memberitahu pesakit berkenaan lokasi PPUSS HSAJB.



Waktu Operasi



Lokasi PPUSS HSAJB



Pembekalan Ubat



Penunjuk Arah ke Lokasi PPUSS HSAJB



Promosi Perkhidmatan Scan & Collect

The Drug Name Emoji GAME

1.    
2.     
3.   
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Hint

*The Drugs Above Can Be Generic or Brand Name

* Guess The Emoji In English