DRUG RESPONSE

⚙ OVERVIEW

Drug response is a quality of life tool that allows you to configure AI tools for your colonists to respond to pain and various maladies or conditions with drugs.

DETAILS

This mod is "not" intending to replace the existing vanilla drug policy process, it is designed as a complimentary QoL tool to allow for pain and malady response, though there is some synergy between them.

It is therefore important to set drug policies for your colonists and include a policy that will have a listing of all the drugs used in it. Thus, important to keep policies up to date where additional drug items from mods might be added to a save game since first starting the game (world start). In these situations, the creation of a "new" drug policy is required to include any new additions.

The synergy with this mod and how it observes drug policy settings; is if a drug has been scheduled for regular periodic use (e.g. take a drug every 2 days), then this mod will assume that it is following that prescribed process and will not trigger the responses set for that particular drug.

The mod has various options to allow you to configure responses and is broken down into sections, the settings are accessible from a main button tab at the bottom of the screen:

GENERAL SETTINGS

Use pain relief AI: is a setting to control whether this feature is applied in the game.

Use malady response AI: allows you to toggle whether this malady response AI is used.

Apply pain responses to colony prisoners: where set prisoners within the colony will have pain medication applied to them. Note in the case of prisoners all drugs are administered using the surgery bill process.

Apply malady responses to colony prisoners: similarly, this denotes whether prisoners will have drugs administered for maladies. These again always being surgery bills for prisoners.

Use non-medical drugs: can be set if you want social and other hard drugs in addition to medical drugs to be used for pain management. Note if you set non-medical drugs to be used, then teetotallers will not use the response.

Only show researched drugs: will limit the drop-down choices within the options to only display drugs that have already been researched, otherwise it will show all relevant drugs regardless of their research status. (This also applies to the Malady response section).

Show pain relief notifications: can be sent if you want to be notified when a colonist is responding to a need to take pain medication.

Show malady response notifications: are messages that can be sent to inform you about any AI drug responses, this setting can be used to turn these off and on.

Always use bills for high pain: is an option you can set that if the pain level is at or above intense levels then surgery bills will be applied regardless of the pain settings value.

Respond when full immunity reached: allows you to stop applying medication when a pawn has gained immunity to that malady or illness. This allows you to save on the amount of medication used when the colonist is no longer at threat from the illness, but this may be counterproductive if the medication is designed to help with the colonist's "full" recovery.

PAIN RELIEF SETTINGS

Pain Drug Selection

The four buttons below then allow you to configure which drugs to apply based on the pain status of the pawn. (The ranges are displayed in text fields to the right).

By pressing one of the buttons a drop-down menu of drug choices is presented for selection or the ability to select none if you do not wish a response for that pain range.

A graphic of the drug once selected is presented to help with identification and an info button provided so that you can examine the details for it.

Pain relief waiting period (hrs) is a setting that prevents a pawn wanting to continuously treat their condition and to prevent potential overdose occurring. If they respond to taking pain medication, then they will not attempt a similar response in the future until this waiting period (in game hours) has expired.

There is another safety net in that the colonist wont attempt to respond if they already have taken the response defined drug, but the severity of the drug is already relatively high against its maximum value.

Note in the case of all responses if a drug has been identified for use but has been "scheduled" for periodic use in the colonist's drug policy then they will not respond with either the task or bill process, since they have been instructed to use that drug by the policy scheduling.

Do pain relief using surgery bills will control whether the pawn will actively try to source and administer their own medication and take it. Whereas using bills will add operation or surgery entries to administer the drugs when a pawn uses a medical bed etc.

This is relevant since some maladies require tending and certain conditions can incapacitate the colonist based on how severe they are. So, using a bill response will allow others to treat the colonist for these occurrences. If tasks are used however (not using bills), when a pawn is capable to respond to taking medication then they will do so. And this can be whilst during a course of treatment if their health condition is not serious or they recover to a sensible point within it.

The system will however apply bills regardless, if the pain response is applied when:

1) the colonist is downed or incapable of moving
2) has intense or higher pain and set to use bills for these cases
3) requiring other medical attention and their general health is not good (< 75% hp).

The setting for pain application of use of tasks/bills here applies to "**all**" the potential pain categories.

MALADY RESPONSE SETTINGS

Note there are up to two malady responses that can be applied, though it is entirely optional if you wish to make use of two responses per malady as one may be sufficient dependant on the type of malady and drug response applied for use. In the case of two responses the second option will always be applied as a surgery bill.

Malady and corresponding drug selection.

Two buttons that have drop down selections are used to define which drug will be used to respond with when a colonist contracts a certain condition or malady. And like pain management includes a drug graphic as relevant with an info button. The option screen only shows one malady at a time, but the response information can be set and stored into memory, this allows for multiple entries/responses for different maladies.

The **Set** button is used to apply your selection and make it active. (So please remember to press it! This has to be done for both options as applicable).

The **Clear** button allows you to quickly clear or reset the individual malady or in the case of "clear all" it will reset all the associated maladies.

Malady response waiting period (hrs) works exactly like the pain drug response waiting period but the values set here will apply different values for each individual malady when set.

Do malady response using surgery bills similarly works like the pain relief assignment, however the settings are applied per malady.

DEVELOPER NOTES

Pain drug mod extension

In the case of pain relief medication, a mod extension is applied to allow for a clearer identification of which drugs have been purposefully designed for pain relief. This since some drugs may apply a small incidental amount of pain relief but that their main purpose is alternative to this.

The mod extension allows for a better appreciation for the player to apply effective pain medication by limiting the qualification to only those drugs with the mod extension.

Though this mod will check to see if the stages apply any relevant amount of pain factor (<= 0.8) or pain offset (<= -0.2) in addition to the mod extension to best identify a pain relevant drug.

The mod extension that would need to be added to the ThingDef of the drug in the xml when this mod is loaded is as follows:

```
<li Class="MSPainless.MSPainDrug">
        <ManagesPain>true</ManagesPain>
</li>
```

And best applied as a patch when this mod is loaded to provide native support. Example:

```
<Operation Class="PatchOperationFindMod">
<mods>
        <li>Drug Response</li>
</mods>
<match Class="PatchOperationSequence">
<success>Always</success>
        <operations>
        <li Class="PatchOperationAddModExtension">
                <xpath>/Defs/ThingDef[defName="MSRimCodamol"]</xpath>
                <value>
                <li Class="MSPainless.MSPainDrug">
                        <ManagesPain>true</ManagesPain>
                </li>
                </value>
        </li>
        </operations>
</match>
</Operation>
```

(The drug responses in the case of a malady only uses the qualifier that the drug is an ingestible medical drug (DrugCategory Medical)).