

## TÊ 21 CHIU<sup>n</sup> HOAT IÓH HŌ P<sup>n</sup>-LÂNG

Lâng ài hák-síp khàn-hō ê sū, tiòh liòh-á bat sng ê hoat-tō, kap chai tàk hāng chhìn, niū, phêng, téng, hit hō. Ōe hiáu-tit pí-kàu lái sng, ū-sí in-ūi beh chiong iòh pun chòe kúi hūn, á-sī beh ke kiám hō i khah kâu, á-sī khah pòh. Che lóng tiòh ōe bēng-pék chiah hó. Siat-sú bōe hiáu-tit chit ê ì-sù, chiū oh-tit sìn-jīm-tit, iā chin gâu gō tãi-chì.

Cháp-chìn-hoat, (十進法, *Decimal system*): Kūn-lái sè-kài ê kok chiām-chiām sēng-jīn. In-ūi sng hoat khah lī-piān. Niū iòh ê hoat-tō, lâng iā chiām-chiām teh ēng chit hō hoat; in-ūi án-ni khàn-hō tiòh tãi-liòk chai. Chit hō hoat sī Hoat-kok tī Chú-āu 1801 nî, sēng hoat-bēng. I chiong tē-kiū, tui pak-kék kàu tē-kiū chhek-tō ê chit chheng-bān ê chit hūn, chòe chit-ê toa<sup>n</sup>-ūi (單位, *unit*), kiò chòe bí-tút (米突, *metre*). Āu-lái lâng khah chim-chiok sng chiū chai bô tú-tú tiòh. Hiān-kim tī Pa-lí ēng chit ki pán, ēng *iridio-platinum* chòe-ê, tú-tú chit bí-tút ê tng.

Chit bí-tút sī Jit-pún chhùn 3 chhiòh 3 chhùn. Chit bí-tút ê chit pah-hūn-chit, kiò-chòe chit pah-hūn-bí-tút (*centimetre, cm.*). Chit *centimetre* ê cháp-hūn-chit, kiò-chòe chit chheng-hūn-bí-tút (*millimetre, mm.*), chiū-sī chit bí-tút ê chheng-hūn-chit.

Nā ū chit ê khoeh-á chhim chit pah-hūn-bí-tút, khoa kap tng iā sī án-ni. Ēng chúi (4°C.) pià<sup>n</sup> kàu móa, sī tú-tú lip-hong-pah-hūn-bí-tút (chit *cubic centimetre*, ū-sí kiò si-sī c.c.). Chit ê chúi sī chit *gramme, (gm.)* ê tâng chiū-si chit óa (瓦).

Ē-bīn tãi-liòk ū pài-liat thang tui-chiò:

Jit-pún, 1 hun = 3 mm.	Jit-pún 1 momme (匁) = 3.75 grm.	
“ 1 chhùn = 3 cm.	“ 160 momme = 1 kun (斤) = 1.32 pōng = 600 grm.	
“ 33 chhùn = 1 M.	Eng-kok 1 pōng = 453.59 grm.	

Ē-bīn ū pài-liat kán-jī ê tui-chiò, sī phó-thong teh ēng-ê:

<i>Metre</i> (bí-tút)	M.
<i>Centimetre</i> (chit pah-hūn-bí-tút)	cm.
<i>Millimetre</i> (chit chheng-hūn-bí-tút)	mm.
<i>Cubic centimetre</i> (lip-hong-pah-hūn-bí-tút)	c.c.
<i>Litre</i> (chit chheng c.c.)	L.
<i>Gramme</i> (óa)	grm.
<i>Kilogramme</i> (chit chheng-óa)	K.

Ē-bīn tãi-liòk ū pài-liat pēng-siōng mih ê tâng-liōng kap só tóe chúi ê giáh-sò.

Thng-sí (chhé-ūn)	= 20	c.c.
Sòe tè óa <sup>n</sup> “	= 350	c.c.
Au-á “	= 60	c.c.
Chhàu-iù-tháng	= 2,0000	c.c. chiū sī 20 L.

Ēng jit-pún gún-kak kap tâng-chi<sup>n</sup> thang tui-chiò:

50 sen (1917 nî-ê)	= 10.2 grm.	1 sen (1917 nî-ê) = 3.8 grm.
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10 sen (1917 nî-ê) = 2.3 grm.      1/2 sen (1917 nî-ê) = 2.1 grm.

Chúi-liōng pêng-hoat:    cháp-chìn-hoat (*Metric*) kap Eng-kok-ê (*Imperial*) tùi-chiò:

*Approximate Imperial Equivalents of Metric Measures of Capacity*

Metric	Imperial	Metric	Imperial	Metric	Imperial
1 c.c....17 (16.9)	min.	20 c.c....5 fl. dr.	38 min.	125 c.c....4 fl. oz., 3 fl. dr.,	
2 c.c....33 5/4	min.	25 c.c....7 fl. dr.	2 min.		12 min.
3 c.c....50 3/4	min.	30 c.c....8 fl. dr.	27 min.	150 c.c....5 fl. oz., 2 fl. dr.,	
4 c.c....1 fl. dr.	7 min.	40 c.c....1 fl. oz., 3 fl. dr.,			15 min.
5 c.c....1 fl. dr.	24 min.		16 min.	200 c.c....7 fl. oz., 0 fl. dr.,	
6 c.c....1 fl. dr.	41 min.	50 c.c....1 fl. oz., 6 fl. dr.,			20 min.
7 c.c....1 fl. dr.	58 min.		5 min.	300 c.c....10 fl. oz., 4 fl. dr.,	
8 c.c....2 fl. dr.	15 min.	75 c.c....2 fl. oz., 5 fl. dr.,			30 min.
9 c.c....2 fl. dr.	32 min.		7 min.	500 c.c....17 fl. oz., 4 fl. dr.,	
10 c.c....2 fl. dr.	49 min.	100 c.c....3 fl. oz., 4 fl. dr.,			50 min.
12.5 c.c....3 fl. dr.	31 min.		10 min.	1 litre....35 fl. oz., 1 fl. dr.,	
15 c.c....4 fl. dr.	13 min.				34 min.

Tāng-liōng pêng-hoat:    cháp-chìn-hoat kap Eng-kok-ê tùi-chiò:

*Approximate Imperial Equivalents of Metric Measures of Mass*

Metric	Imperial	Metric	Imperial	Metric	Imperial
1 mgm.	1/64 gr.	15 cgm	2 1/4 grains	10 gm	154 1/3 grains
2 mgm.	1/33 gr.	20 cgm	3 grains	15 gm	231 1/2 grains
3 mgm.	1/21 gr.	26 cgm	4 grains	20 gm	308 3/5 grains
4 mgm.	1/16 gr.	30 cgm	4 1/2 grains	30 gm	1 oz. 25 1/2 grains
5 mgm.	1/13 gr.	40 cgm	6 1/4 grains	40 gm	1 oz. 179 4/5 grains
6.5 mgm.	1/10 gr.	50 cgm	7 3/4 grains	50 gm	1 oz. 334 grains
8 mgm.	1/8 gr.	75 cgm	11 1/2 grains	75 gm	2 oz. 282 1/2 grains
1 cgm.	1/6 gr.	1 gm	15 1/2 (15.432) grains	100 gm	3 oz. 230 3/4 grains
2 cgm.	1/3 gr.	2 gm	30 7/8 grains	150 gm	5 oz. 127 1/2 grains
3 cgm.	1/2 gr.	3 gm	46 1/4 grains	250 gm	8 oz. 358 grains
5 cgm.	3/4 gr.	4 gm	61 3/4 grains	500 gm	1 lb. 1 oz. 278 gr.
6.5 cgm.	1 gr.	5 gm	77 1/6 grains	750 gm	1 lb. 10 oz. 200 gr.
10 cgm.	1 1/2 gr.	7.5 gm	115 3/4 grains	1 kgm	2 lb. 3 oz. 120 gr.

Eng-kok 1 grain ê hun-sò kap cháp-chìn-hoat ê tùi-chiò.    Tùi 1 *grain* chi 1/1000 *grain*.

*Equivalents of Imperial and Metric Measures of Mass*

FRACTIONS OF A GRAIN

From 1 grain to 1/1000 of a grain

Imperial	Metric	Imperial	Metric	Imperial	Metric
gr. 1	0.065 gm.	gr. 1/20	0.0032 gm.	gr. 1/120	0.00054 gm.

gr. 3/4	0.049 gm.	gr.1/24	0.0027 gm.	gr.1/130	0.0005 gm.
gr. 2/3	0.043 gm.	gr.1/25	0.0026 gm.	gr.1/150	0.00043 gm.
gr. 1/2	0.032 gm.	gr.1/30	0.0022 gm.	gr.1/180	0.00036 gm.
gr. 1/3	0.022 gm.	gr.1/32	0.0012 gm.	gr.1/200	0.00032 gm.
gr. 1/4	0.016 gm.	gr.1/40	0.0016 gm.	gr.1/240	0.00027 gm.
gr. 1/5	0.013 gm.	gr.1/50	0.0013 gm.	gr.1/250	0.00026 gm.
gr. 1/6	0.011 gm.	gr.1/60	0.00108 gm.	gr.1/300	0.00022 gm.
gr. 1/7	0.009 gm.	gr.1/64	0.001 gm.	gr.1/400	0.00016 gm.
gr. 1/8	0.008 gm.	gr.1/70	0.00093 gm.	gr.1/500	0.00013 gm.
gr. 1/10	0.0065 gm.	gr.1/75	0.00086 gm.	gr.1/600	0.00011 gm.
gr. 1/12	0.0054 gm.	gr.1/80	0.00081 gm.	gr.1/640	0.0001 gm.
gr. 1/15	0.0043 gm.	gr.1/96	0.00067 gm.	gr.1/750	0.00009 gm.
gr. 1/16	0.004 gm.	gr.1/100	0.00065 gm.	gr.1/1000	0.00006 gm.

Eng-kok 1 *grain* ê pōe-sò kap chấp-chìn-hoat ê tùi-chiò. Tùi 1 *grain* chì 1 *ounce*.

#### MULTIPLES OF A GRAIN

From 1 grain to 1 ounce

Imperial	Metric	Imperial	Metric	Imperial	Metric
gr. 1	0.065 gm.	gr. 6	0.389 gm.	gr. 35	2.268 gm.
gr. 1 1/4	0.081 gm.	gr. 7	0.454 gm.	gr. 40	2.592 gm.
gr. 1 1/3	0.086 gm.	gr. 8	0.518 gm.	gr. 50	3.24 gm.
gr. 1 1/2	0.097 gm.	gr. 8 3/4	0.567 gm.	gr. 60	3.89 gm.
gr. 1 3/4	0.113 gm.	gr. 9	0.583 gm.	gr. 80	5.184 gm.
gr. 2	0.13 gm.	gr. 10	0.648 gm.	gr. 120	7.78 gm.
gr. 2 1/2	0.162 gm.	gr. 12	0.778 gm.	oz. 1/8	3.54 gm.
gr. 3	0.194 gm.	gr. 15	0.972 gm.	oz. 1/4	7.08 gm.
gr. 3 1/3	0.227 gm.	gr. 18	1.166 gm.	oz. 1/2	14.17 gm.
gr. 4	0.259 gm.	gr. 20	1.296 gm.	oz. 4	15.55 gm.
gr. 4 1/4	0.292 gm.	gr. 25	1.620 gm.	oz. 1	28.35 gm.
gr. 5	0.324 gm.	gr. 30	1.944 gm.	oz. 8	31.1 gm.

Chúi-liōng phêng-hoat: Eng-kok (*Imperial*) kap chấp-chìn-hoat (*Metric*) ê tùi-chiò. Tùi 1/2 *minim* chì *fluid ounce*.

#### Equivalents of Imperial and Metric Measures of Capacity

From half-a-minim to 1 fluid ounce

Imperial	Metric	Imperial	Metric	Imperial	Metric
min.1/8	0.007 c.c.	min. 7	0.414 c.c.	min. 40	2.368 c.c.
min.1/4	0.015 c.c.	min. 8	0.474 c.c.	min. 50	2.96 c.c.
min.1/2	0.03 c.c.	min. 9	0.533 c.c.	min. 60	3.55 c.c.
min.3/4	0.044 c.c.	min. 10	0.592 c.c.	min. 60	5.33 c.c.

min.1	0.059 c.c.	min. 12	0.71 c.c.	min. 120	7.1 c.c.
min.2	0.118 c.c.	min. 15	0.888 c.c.	min. 180	10.65 c.c.
min.3	0.178 c.c.	min. 20	1.184 c.c.	min. 240	14.21 c.c.
min.4	0.237 c.c.	min. 25	1.497 c.c.	min. 300	17.76 c.c.
min.5	0.296 c.c.	min. 30	1.776 c.c.	min. 360	21.31 c.c.
min.6	0.355 c.c.	min. 35	2.072 c.c.	min. 480	28.42 c.c.

Min., minim; fl. dr., fluid drachm; fl. oz., fluid ounce; gr., grain; oz. ounce; dr. drachm.

Tāng-liōng

168 lb	76.203 kgm.
154 lb	69.853 kgm.
140 lb	63.503 kgm.
126 lb	57.153 kgm.
112 lb	50.802 kgm.
98 lb	44.452 kgm.
84 lb	38.102 kgm.
70 lb	31.751 kgm.
56 lb	25.401 kgm.
42 lb	19.051 kgm.
28 lb	12.701 kgm.
14 lb	6.350 kgm.
13 lb	5.897 kgm.
12 lb	5.443 kgm.
11 lb	4.990 kgm.
10 lb	4.536 kgm.
9 lb	4.082 kgm.
8 lb	3.629 kgm.
7 lb	3.175 kgm.
6 lb	2.722 kgm.
5 lb	2.268 kgm.
4 lb	1.814 kgm.
3 lb	1.361 kgm.
2 lb	0.907 kgm.
1 lb	0.454 kgm.

A

A. -Eng-kok-pōng kap cháp-chìn-hoat ê tùi-chiò-pió.

B. -Eng-kok-chhioh kap cháp-chìn-hoat ê tùi-chiò-pió.

Ib., pōng; kgm., kiogramme; ft., chhioh; in., chhùn; mm., millimetre.

(Six tables from Wellcome's "Medical Diary.")

Chhòng iòh hō pī<sup>n</sup>-lâng ū chin chōe ê hoat-tō. Iòh nā khip-siu tī huìh-nìh ū kúi-nā tiâu lō, chiū-sī pài-liát

Tng-liōng

6ft.	1828.8mm.
5 ft.	1524.0 mm.
4 ft.	1219.2 mm.
3 ft.	914.4 mm.
2 ft.	609.6 mm.
1 ft.	304.8 mm.
11 in.	279.4 mm.
10 in.	254.0 mm.
9 in.	228.6 mm.
8 in.	203.2 mm.
7 in.	177.8 mm.
6 in.	152.4 mm.
5 in.	127.0 mm.
4 in.	101.6 mm.
3 in.	76.2 mm.
2 in.	50.8 mm.
1 in.	25.4 mm.
in	19.0 mm.
1/2 in	12.7 mm.
1/4 in	6.4 mm.

B

tī ē-tóe:

1. Tùi chhùi chiáh.
2. Tùi tit-tng kòan-jip.
3. Chù-siā tī chēng-méh-kng-lāi, kap phê-ē-kiat-tè-chit-lāi.
4. Tùi phê-hu.
5. Tùi hi-chōng khip-jip.
6. Tùi im-tō kòan-jip; tùi jiō-tō, pōng-kong; chhùi sóa-kháu; bák-chiu, hī-á, phī<sup>n</sup>-khang.

Ū chit khoán ê iòh chí-ū òe kám-tōng tãi-seng kàu ê só-chāi, chhin-chhiū<sup>n</sup> tùi gōa-bīn lâi kô, chiū òe kám-tōng phê, tùi chhùi chiáh-ê chiū òe kám-tōng tui kap tng ê liām-móh. Chóng-sī tē it chōe-ê, sī khip-siu tī huìh-nih, koh tùi huìh-nih kiā<sup>n</sup> kàu ták ũi kiat-tè-chit, kun-bah ê só-chāi, jiān-āu chiah tī hit ê ũ pī<sup>n</sup> ê ũi kī<sup>n</sup>-chhut kong-hāu. Lūn kàu chit khoán ê iòh, kong-hāu ê tōa sío, sī khòa<sup>n</sup> hit ê huìh khip-siu ê sí, kín á-sī bān.

Iòh khip-siu tī seng-khu-lāi ũ koan-hē tī ē-bīn só kì-ê:

1. Chiàu iòh hē tī pō-ūi ê hun-piat.
2. Huìh sùn-khóan ê khoán-sit.
3. Iòh iū<sup>n</sup>-kai-seng (溶解性, *solubility*).
4. Iòh thau-kè liām-móh ê chok-iōng.

Chù-siā tī chēng-méh-lāi sī siāng kín, chóng-sī chit ê hoat-tō sī kan-ta i-seng teh chòe-ê. Tē jī sī tī phê-ē-kiat-tè-chit-lāi. Nā án-ni kè gō hun-cheng-kú chiū kī<sup>n</sup>-chhut kong-hāu. Tùi chhùi chiáh sī khah bān, tùi tit-tng koh khah bān. Tùi hi-chōng sī khah kín, in-ūi hi-chōng-lāi mng-sòe-huìh-kng chin chōe.

Nā tùi chhùi chiáh kàu ũi, tiòh 20 hun-cheng-āu, chiah òe kī<sup>n</sup>-chhut kong-hāu. Tùi tit-tng jip tiòh 45 hun-cheng-āu, chiah ũ hāu-iōng. Bē chiah ê tãi-seng lâi chiah iòh, pí chiah-pá, khah khòai khip-siu, in-ūi ũi-nih bô sit-bút chó-keh i teh kiā<sup>n</sup> kàu ũi ê liām-móh. Nā pī<sup>n</sup> tāng, huìh sùn-khóan chiū khah bān, liām-móh bōe thang chiàu pēng-sī ê chok-iōng, iòh khip-siu chiū khah bān. Iòh-hún kap iòh-òan khah bān, in-ūi tī ũi-tng-nih tiòh thèng-hāu iū<sup>n</sup>-kái.

Hoat iòh hō pī<sup>n</sup>-lāng ê kui-chek:

1. Ū tók ê iòh, m̄-thang hē kap bô tók ê iòh siāng chit só-chāi. Chhat ê iòh kap chiah ê iòh iā sī án-ni. Iàu-kín tiòh kì-tit, hōan-nā ũ tók ê iòh, m̄-thang hē tī pī<sup>n</sup>-lāng bīn-chhng-téng ê kè-á-nih.
2. Iòh-tú tiòh sí-siōng só-teh.
3. Kī<sup>n</sup>-nā beh chhòng iòh-chúi hō pī<sup>n</sup>-lāng chiah ê sí, iàu-kín tiòh tãi-seng chiong iòh-kan iò hō i chiàu, in-ūi iòh ê gōan-liáu, ũ khin ũ tāng. Chit ê lí-khi khàn-hō eng-kai tiòh chai. Ū-ê iòh-chúi ê lâi-bīn ũ *bismuthum* ê iòh-hún, á-sī khah oh hòa, í-kip hun-liōng tāng ê iòh-hún, koh khah iàu-kín tiòh iò hō chiàu-chiàu; koh tò lòh poe-nih ê sí, tiòh liām-pī<sup>n</sup> chiah, in-ūi che chin khòai tím tóe.
4. Tiòh ēng chit tē pōa<sup>n</sup>-á, hē chit tē niū-poe, chit tē chúi-poe, chit óa<sup>n</sup> léng-kún-chúi, kap sóe chúi-poe ēng ê chúi chit pōa<sup>n</sup>, chit tē chheng-khì pò. Nā hō chit-ê chiah liáu, tiòh chiong tóe iòh ê poe sóe hō chheng-khì, chhit hō ta, chiah thang koh hō pát lāng chiah.
5. Pī<sup>n</sup>-lāng chiah liáu, só ēng ê poe tiòh sóe hō chheng-khì; m̄-tān-nā in-ūi bô chheng-khì, iā kia<sup>n</sup>-liáu chiong hit hō thōan-jám pī<sup>n</sup> iáu-bē hián-chhut ê pī<sup>n</sup>-lāng, só ēng ê poe koh hō pát lāng ēng, sī gūi-hiám.
6. Hōan ũ thōan-jám pī<sup>n</sup>-ê, i só ēng ê mih-kiā<sup>n</sup>, tiā<sup>n</sup>-tiòh sī lóng kap pát lāng teh ēng-ê bô sio-siāng.
7. Ták ê pī<sup>n</sup>-lāng ê iòh-kan, lóng tiòh tah iòh-phiau, chiah iòh it-khai ê hoat-tō lóng tiòh sía hit téng-bīn. Ták pái hō pī<sup>n</sup>-lāng chiah iòh ê sí, tiòh tãi-seng khòa<sup>n</sup> iòh-phiau, chiah khòa<sup>n</sup> sī hit hō iòh á m̄-sī, iā tiòh khòa<sup>n</sup> hit ê



chiáh iòh ê sî-kan, kap iòh ê hun-liông ũ háp á-bô; iàu-kín m̄-thang thèng-hāu p̄<sup>n</sup>-lâng chiáh iòh liáu-āu, chiah khòa<sup>n</sup> iòh-phiau. Nā thèh chít hāng iòh, tãi-seng tiòh khòa<sup>n</sup> kan-á-phiau, kó-jiân sī lán só beh ēng hit hāng ê jī á m̄-sī, chiah thang pià<sup>n</sup>-chhut-lái. Āu-lái koh khòa<sup>n</sup> chít pái, chiah hoat hō lāng, ũ khòa<sup>n</sup> kè n̄ng pái chiah ñg-bāng bô chhò-gō.

8. Hōan-nā bē bat tah iòh-phiau ê kan-á, m̄-thang hō lāng.

9. Tiòh sī-siông chiàu niū-poe niū, m̄-thang liông-iok. Iòh-kan ũ-ê ũ keh hùn; chiàu i-seng hoan-hù ê giáh-sò, tiòh chhòng hō p̄<sup>n</sup>-lâng chiáh; chiàu-liông m̄-thang ke-thi<sup>n</sup>, á-sī kiám-chió.

10. Niū iòh ê sī, m̄-thang chiong tih ê hoat, in-ūi ũ tōa sòe tih ê iân-kò. Phì-lūn 3.5 c.c. ê chúu ũ 60 tih, *alcohol* (chiú) 146 tih, *chloroform* (bâ-chùi-iòh) 250 tih.

11. Chiáh iòh tiòh chiàu sī-chūn; phì-lūn múi jít chiáh sa<sup>n</sup> pái; ngó-chēng 10 tiám, ngó-āu 2 tiám, 6 tiám. Nā-sī 7 tiám, 5 tiám kah lī-piān iā thang, chóng-sī iàu-kín m̄-thang bô chiàu-sī. Ū-sī i-seng hoan-hù tiòh sī tiám, á-sī sa<sup>n</sup>-tiám, kok chiáh chít pái, iū-gōan tiòh chiàu sī. Iā m̄-thang ka-kī phah-sng chít pò<sup>n</sup> pái bô hō i chiáh bô iàu-kín.

12. Chóng-sī mí-sī beh chhòng iòh hō p̄<sup>n</sup>-lâng chiáh tiòh tãi-seng m̄ng i-seng thang kiò i chhi<sup>n</sup> á m̄-thang. I-seng nā hoan-hù tiòh, chiah thang, nā bô, chiū m̄-bián.

13. Hō gín-á chiáh iòh thâu chít pái chòe iàu-kín, in-ūi nā thâu chít pái bô hoat-tō, lái hō i kam-gōan chiáh-lòh-khì, jiān-āu tak pái chiáh iòh, chiū chin hùi-khì. Chít hāng tiòh hō i chai m̄-chiáh bōe-ēng-tit; chít hāng tiòh siū<sup>n</sup> hoat-tō bôh-tit hō i háu, hō i chhá. Nā beh chhòng pháit<sup>n</sup> chiáh ê iòh hō gín-á chiáh, m̄-thang kiáu gū-leng, in-ūi i òe hiām gū-leng pháit<sup>n</sup> chiáh; sòa bô beh chiáh gū-leng. Tiòh ēng ti<sup>n</sup> ê lūi lái kiáu, i chiū hoa<sup>n</sup>-hí chiáh.

14. Nā beh thîn iòh, iòh-phiau tiòh ñg téng-bīn, tí-hông iòh bián-tit bak-tiòh iòh-phiau.

15. Iòh-hún tiòh pià<sup>n</sup> tī chih-téng ê āu-bīn, ēng léng-kún-chúu phè, chiah thun-lòh-khì. Ū-sī thang ēng ti<sup>n</sup> ê mih pang-chān i thun. Nā kah pháit<sup>n</sup> chiáh ê iòh-hún, chiū tiòh ēng pau iòh ê mī-phi<sup>n</sup> pau-teh. Pau hō chhin-chhiū<sup>n</sup> sòe-á pau-á ê khoán, chiah hē tī tē-au-nih léng-kún-chúu ê téng-bīn, chít-ē chiū kā i thun-lòh-khì. Chit ê mī-phi<sup>n</sup> nā jip tī ũi-nih sī khòai-khòai siau-iū<sup>n</sup> ê mih. Hōan-nā teh ēng iòh-ōan tiòh chai ũ-sī siu<sup>n</sup> tēng, chiū bōe-ōe siau-iū<sup>n</sup>-khì, iū-gōan kui liáp tī pùn-nih pài-chhut-lái, án-ni chiū bô kong-hāu. Sī kah hó tiòh seng géng hō chiáu, chiah chiáh.

16. Siat-sú tú-tiòh p̄<sup>n</sup>-sè kah tāng, á-sī in-ūi pát mih iân-kò, tì-kàu oh-tit chiáh iòh, tiòh ēng leng, á-sī gū-leng-iū, lái kiáu hō chiáu, thang pang-chān i thun-lòh-khì.

17. Ū chít khoán pháit<sup>n</sup> chiáh ê iòh chhin-chhiū<sup>n</sup> *quinina*, nā chúu thàu jú chōe, chiū hō lāng jú kan-khó chiáh; m̄-kú ũ chít khoán ê iòh, tiòh kap kah chōe chúu, chiah òe-ēng-tit: chhin-chhiū<sup>n</sup> sng ê lūi, *magnesii sulphas, bromidum* chiah-ê. P̄<sup>n</sup>-lâng bē chiáh iòh ê tãi-seng, ài lim tām-pòh léng-kún-chúu, iā thang; nā iòh chiáh liáu, ài phè léng-kún-chúu iā bô iàu-kín.

18. Nā chhòng iòh-iū hō p̄<sup>n</sup>-lāng, tãi-seng chiong chít ki sī hē sio-chúu-nih hō i sio, chiah thîn iū tī sī-nh. Án-ni iū òe sio, kah bōe liām, kah khòai thun.

19. I-seng chhòng hō p̄<sup>n</sup>-lāng chiáh ê iòh, āu-lái nā thēng, khàn-hō m̄-thang sūi-piān koh chhòng hō i chiáh; tiòh i-seng ũ hoan-hù chiah thang.

20. Nā p̄<sup>n</sup>-lāng chhò-gō chiáh siu<sup>n</sup> chōe iòh, tiòh liām-p̄<sup>n</sup> kā i-seng kóng; kiám-chhái tiòh ēng thò-che hō p̄<sup>n</sup>-lāng, thang hō iòh thò-chhut-lái.

Chiàu phó-thōng ê kui-chek, tiòh chiáh-pá liáu-āu n̄ng tiám-cheng-kú, chiah chiáh iòh. Ū kúi-nā khoán ê

iòh bô chiàu kui-chek, sng sī lē-gōa, chhin-chhiū<sup>n</sup> ē-tóe:

Kiān-ūi-iòh (健胃藥, *Stomachics*): Chit hō iòh sī siók khah khui ūi-ê, iā òe hō ūi-ék khah chōe. Chit hō iòh, tiòh tī iáu-bē chiáh p̄ng ê t̄ai-seng 15 hun-cheng chiáh. Chhin-chhiū<sup>n</sup> khó ê iòh, *nux vomica*.

Siau-hòa-iòh (消化藥, *Digestives*): Tiòh chiáh-p̄ng-pá liáu-āu 15 chì 30 hun-cheng chiah chiáh. Ūi-nih sng-ék nā bô kàu-giáh thang siau-hòa; chit hō iòh tiòh chiáh-pá chiáh. *Pepsina, acidum lacticum, pancreatin, sī siók tī chit hō lūi*.

Nā beh chhòng iòh hō i kám-tōng ūi ê kiók-pō, tiòh tī bē chiáh p̄ng ê t̄ai-seng 15 chì 30 hun-cheng chiah chiáh, chhin-chhiū<sup>n</sup> *bismuthum*.

Ū-ê iòh òe chhi-kek-tiòh ūi, hō i bōe siau-hòa; chit hō iòh tiòh chiáh-pá chiáh. Chhin-chhiū<sup>n</sup> *ferrum, arsenicum, hydrargyrum, potassii iodidum*.

Kiông-chòng-che, chhin-chhiū<sup>n</sup> hī-iū, iā tiòh chiáh p̄ng āu.

Hā-che (sià-iòh): Nā ūi-nih bô chiáh mih ê sí, lái chiáh iòh, iòh ê khui-lát chiū khah khòai kiá<sup>n</sup> kàu chōng-khì ê só-chāi; só-í chiáh sià-iòh chhin-chhiū<sup>n</sup> *magnesi sulphas*, tiòh tī chá-khí-sí, á-sī ē-po-sí bē chiáh p̄ng ê t̄ai-seng iok-liók pò<sup>n</sup> tiám-cheng. Sià-iòh chiáh liáu, nā liām-pi<sup>n</sup> chiáh sio-chúi òe khah khòai sià. T̄ai-khai chiáh liáu-āu bô lōa-kú òe sià.

Nā ēng iòh-òan chiū khah bān, só-í nā ài hō i keh-jit ê chá-khí-sí t̄ai-piān, tiòh tī ē-po hō i chiáh-lòh-khì, in-ūi iòh-òan tiòh keh kúi-nā tiám-cheng-kú chiah òe hòa khui, án-ni sī hō pi<sup>n</sup>-lâng lī-piān thang khùn.

Bā-chui-iòh (麻醉藥, *Narcotics*): Beh hō i òe khùn-tit ê iòh, tiòh tī beh khùn ê sí chiah hō chiáh; chiàu i-ī<sup>n</sup> ê kui-kú tī 10 tiám-cheng (á-sī 8 tiám) ê sí, ták hāng t̄ai-chi tiòh lóng chhòng liáu, chiah hō i chiáh iòh. Koh ū chit chéng ài-khùn-iòh, chhin-chhiū<sup>n</sup> *sulphonal*, chit lūi ê iòh m̄-sī kóng chiáh liáu chiū òe khùn-tit, tiòh chiáh liáu-āu, óa n̄ng sa<sup>n</sup> tiám-cheng chiah khùn. Ki<sup>n</sup>-nā beh khùn ê t̄ai-seng tiòh chiáh chit ê iòh, kàu chit ê sí khàn-hō eng-kai tiòh siat-hoat hō i khùn. Tiòh kah hō i sio; pi<sup>n</sup>-sek-lāi m̄-thang kóng tōa sia<sup>n</sup> òe; iā tiòh cháh kng hō i khah àm, chiah khah khòai khùn. Pi<sup>n</sup>-lâng chiáh iòh liáu-āu, khàn-hō tiòh khòai<sup>n</sup> i sím-mih khoán, chhin-chhiū<sup>n</sup> keh-jit khòai<sup>n</sup> ū thau-khak thiá<sup>n</sup> á-bô.

Chhùi só chiáh ê iòh, ū-ê tui ūi-nih khip-siu, chóng-sī kàu tī tng-nih chiah khip-siu-ê sī chin chōe.

Lâng nā chiáh thih-che kap sng lūi ê iòh, òe hō chhùi-khí pi<sup>n</sup> o-sek. Só-í chiáh chit hō iòh ê sí, tiòh ēng chit tiâu po-lê-kng suh iòh tī chhùi ê āu-pō; iā chiáh iòh liáu-āu, eng-kai ēng chúi kap *sodii bicarbonas* ê iòh hō i sóa-kháu. *Tinct. ferri perchlor.* chit hō ê iòh, chin gâu siong chhùi-khí, koh òe hō chih kap t̄ai-piān pi<sup>n</sup> o ê sek.

Chhòng *oleum ricini* hō pi<sup>n</sup>-lâng chiáh ê hoat:

1. Phàu 200.0 c.c. ko-phi-tê tóe tī óa<sup>n</sup>-nih.

2. Chiong 20.0 c.c. ko-phi-tê hē tē-au-nih; chiong *oleum ricini* piá<sup>n</sup> tī téng-bīn, koh piá<sup>n</sup> tām-pòh ko-phi-tê tī hit téng-bīn.

3. Ēng tām-pòh ko-phi-tê sóe chhùi, chiah ēng chng-thau-á ngòeh phī<sup>n</sup>-khang hō i bát, iā tui chhùi ho-khip. Teh ngòeh ê sí, ēng ū-pī ê iòh chòe chit-ē thun-lòh-khì. Chiáh liáu phī<sup>n</sup>-khang m̄-thang pàng, chóng-sī ēng chhun ê ko-phi-tê khah chim-chiok sóa kháu, chhùi-lāi ták pō-ūi tiòh sóe chheng-khì. Sóe chha-put-to chit n̄ng hun-chheng-kú, chiū phī<sup>n</sup>-khang thang pàng. Iū-gōan koh n̄ng hūn-cheng-kú tui chhùi ho-khip.

Ngòeh phī<sup>n</sup>-khang ê lí-khì, sī lâng chai *oleum ricini* ê bī m̄-sī tui chhùi-lāi, sī tui phī<sup>n</sup>-khang-lāi ê sīn-keng; iā koh khong-khì nā bô jip phī<sup>n</sup>-khang, chiū chit hō bī m̄-chai.

Chit ê hoat-tō *phī-jīn* pún-sin bat ēng, iā hit hō bī lóng bô phī<sup>n</sup>-tiòh. Chha-put-to 20 nī-kú bô chiáh chit hō iòh, chiah lái T̄ai-òan ēng chit hō hoat-tō, chai sī hó ēng.

Nā bô ko-phi-tê, ēng pêng-siông kâu tê, tâu-iû, ōng-lâi, á-sī kam-á-chiap iā hó.

Nā pī<sup>n</sup>-lâng chia̍h iòh, koh gō hun á-sī chấp hun-cheng-kú chia̍h thò chhut-lâi, tiòh thèng-hâu 20 hun-cheng-kú chia̍h koh hō i, sī thò-tòng.

Pát khoán ê iòh tùi chhùi chhiá̍h, khòa<sup>n</sup> téng-bīn.

Chō-iòh (坐藥, *suppositorium*) chiū-sī tēng koh khòai siau-iû<sup>n</sup> ê iòh-ôan that jip kong-bún (sòa jip tit-tng), á-sī im-tō-lâi. Tī chit liáp iòh-ôan-lâi, ū-sī sī a-phiàn beh chí thià<sup>n</sup> ê lō-ēng. *Suppositorium iodoformi* sī tī-liâu im-tō-lâi lâu-chhut pháí<sup>n</sup> ê êk, ū m̄-hó ê bī. *Suppositorium glycerini* sī beh hō pī<sup>n</sup>-lâng tãi-piān ê lō-ēng. Iā tiòh khòa<sup>n</sup> tē 132 tô.

Koh chit ê hoat sī chù-siā tī phê-ē ê kiát-tè-chit; kong-hâu chòe kín. Kā pī<sup>n</sup>-lâng chù-siā-iòh ê hoat sī chin iàu-kín ê sū, in-ūi iòh lát chin tōa. Nā ēng chit hō iòh, ū-sī ke chit tih á-sī nng tih, sui-jiân chha bô lōa-chōe, m̄-kú chù-siā-iòh ê lát, cheng-chha put-chí chōe.

Khàn-hō tiòh thèh chit ki chù-siā-khi lâi óh àn-chái<sup>n</sup>-iû<sup>n</sup> ēng. Chù-siā-khi ū sa<sup>n</sup> hāng lâi chia<sup>n</sup>-ê, chiū-sī chù-siā-tâng (注射筒, *barrel*), khip-kóai<sup>n</sup> (吸桿, *piston*), chù-siā-chiam (注射針 *needle*; tē 181 tô).

Chit ê chù-siā-chiam sī kng-thih lâi phah-ê. Chù-siā-tâng kap khip-kóai<sup>n</sup> ū-sī sī kng-thih, ū-sī sī po-lê. Nā-sī chù-siā-khi lóng kng-thih chòe-ê, beh kè-sáh gō hun-kú kah khòai. Nā chù-siā-tâng sī po-lê, beh kè-sáh iā hó, m̄-kú tiòh tãi-seng ēng tām-pòh pòr lâi pau, chia̍h hē léng-chúi-nih, ūn-ūn-á hiá<sup>n</sup> hō kún. Nā hut-jiân hē lóh sio-chúi-nih, kia<sup>n</sup>-liáu òe pit pháí<sup>n</sup>-khi. Iā ū koh chit hoat: chù-siā-chiam lâi kè-sáh, hit ê po-lê chù-siā-tâng khip-kóai<sup>n</sup>, ēng *alcohol* á-sī *methylated spirit* (hé-chiú) lâi chìm chấp hun-kú. Chìm liáu tiòh chiong léng-kún-chúi, á-sī khi-chúi, lâi sóe.

Tãi-seng ēng tām-pòh chheng-khi léng-kún-chúi, khòa<sup>n</sup> chù-siā-chiam ū hah ēng á-bô, jiân-âu chia̍h pī-pān iòh, eng-kai ēng lōa-chōe, chiáu án-ni lâi hō thiu-jip-khi. Nā-sī iòh-ôan, tiòh tãi-seng ēng khi-chúi á-sī léng-kún-chúi hō i sòa<sup>n</sup>, chia̍h hō thiu-jip-khi.

Koh chit hāng, chit ê chù-siā iòh-ôan beh hō i sòa<sup>n</sup> ê hoat, ū kúi-nā-hāng ê hoat-tō, chit-ê chiū-sī chiáu ē-tóe: Ēng chit ki gūn á-sī kng-thih-sī tiòh kè-sáh. Chiong chit c.c. khi-chúi hē sī-lâi. Thèh chit liáp iòh-ôan hē chú-lâi, iā ēng kè-sáh ê po-lê-thui lâ-lā hō iû<sup>n</sup>-kái.

Bē chù-siā ê tãi-seng tiòh sóe ka-kī ê chhiú, iā ēng *lotio iodi* chhat beh chù-siā ê só-chāi; á-sī ēng hé-chiú á-sī *ether* sóe phê-hu hō i chheng-khi.

Thèh chù-siā-tâng kap khip-kóai<sup>n</sup>, chiong ū-pī ê iòh thiu-jip-khi; chia̍h tau chiam. Thèh chù-siā-khi tī chhiú-nih, chiam hit thâu **kiah** ñg chiū<sup>n</sup> kôai<sup>n</sup>, ēng chng-thâu-á khà tâng ê pi<sup>n</sup>-á hō lâi-bīn ê khong-khi chiū<sup>n</sup>-kôai<sup>n</sup>, chia̍h chiong khip-kóai<sup>n</sup> hō khong-khi lóng tū-khi.

Chiong chià<sup>n</sup>-chhiú thèh chù-siā-khi, ēng tōa-thâu-bú kap kí-chái<sup>n</sup> chiong chù-siā-tâng kap chiam chiap ê só-chāi, khi<sup>n</sup> hō ân. Ēng tióng-chái<sup>n</sup>, bú-bêng-chái<sup>n</sup>, bé-chái<sup>n</sup> ê bé-liu hō chù-siā-tâng òe chāi. Nā án-ni kiáh, í-keng thiu-chhut-lâi ê khip-kóai<sup>n</sup> ê gōa-bīn hit thâu, òe khòa<sup>n</sup> tī chhiú-chiú<sup>n</sup> chhioh-kut hit pêng ê phê-bah.

Ēng tò-chhiú ê tōa-thâu-bú kap kí-chái<sup>n</sup>, tióng-chái<sup>n</sup>, chiong pī<sup>n</sup>-lâng ê phê-hu ngòeh-khí-lâi (tiòh sòe-jī m̄-thang keng ū huìh-kng ê só-chāi). Ēng chù-siā-chiam chhah-jip-khi phê-ē, hit ê hong-hiòng m̄-thang tit-tit jip chhim ê kun-bah, tiòh kap phê-hu pêng-hêng, chia̍h òe jip phê-ē ê kiát-tè-chit-lâi. Chng-thâu-á chiáu téng-bīn ê khoán-sit m̄-thang òa<sup>n</sup>, tiòh ēng chhiú-chiú<sup>n</sup> ê bah, chiong khip-kóai<sup>n</sup> ūn-ūn-á sak-jip-khi, hit ê iòh chiū òe jip. Koh chit-ê hoat-tō sī chiáu tē 182 tô-nih.

Tām-pòh siau-tòk ê mí-hoe ùn *lotio iodi* chhih hit ê chiam chhák ê só-chāi, chit chhiú chiong chiam puih-khí-lâi, sòa ēng hit tē mí chiong chiam chhák ê só-chāi, jê-jê teh, hō iòh kah khòai khip-siu tī huìh-nih.



Chù-siā-khì tiòh ēng chheng-khì ê sio-chúí sóe, jiân-āu chiong **hé-chiú** sóe. Chit ê hé-chiú tiòh n̄ng sa<sup>n</sup> pái thiū-jip-lâi, sak-chhut-khì, chiah chiong khong-khì án-ni jip chhut, hō chù-siā-khì òe ta. Ēng chiú-cheng sóe liáu tiòh thèng-hāu n̄ng sa<sup>n</sup> hun-kú hō ta. Chiah chiong *vaseline* lâi boah hit ki chiam, chiam-kng-lâi chiah chng chit tiâu gūn-si á-sī tâng-si, thang tī-hông si<sup>n</sup> sian. Lóng chhòng chheng-chhó tiòh khng tī siu<sup>n</sup>-lâi, iā hē tiā<sup>n</sup>-tiòh ê só-chāi. Ta<sup>n</sup> chit-ê sī put-chí iàu-kín, ták-ê tiòh siú, nā bô, pát lāng beh ēng ê sí, tú-tioh chiam si<sup>n</sup> sian bōe ēng-tit.

Boah-iòh-ko-hoat (*Inunction*): Ū-sī ēng ko-iòh boah pī<sup>n</sup>-lāng ê thong seng-khu. Lóan-jiók ê gín-á thang ēng hí-iú, á-sī *oleum olivae* boah i ê seng-khu. Nā án-ni chòe, chhiú, iú, kap pī<sup>n</sup>-sek-lâi, tiòh sio. Tiòh boah gō hun-cheng-kú.

Súi-gūn-boah-iòh-ko-hoat: Nā ēng chit hō hoat, tiòh boah tī phê-hu khah pòh ê só-chāi, chhin-chhiū<sup>n</sup> tōa-thúi ê lâi-bīn pêng. Tùi phê-hu iòh-ko òe khip-siu tī seng-khu. Tāi-seng kah pī<sup>n</sup>-lāng sóe seng-khu, iā òa<sup>n</sup> chheng-khì ê lâi-sa<sup>n</sup>. Chiong iòh-ko chiàu i-seng ê bēng-lēng boah seng-khu. Nā tiā<sup>n</sup>-tiā<sup>n</sup> boah chit ūi, òe chhi-kek-tiòh hit ê phê-hu, só-i ták jít tiòh òa<sup>n</sup> boah tī pát-ūi. Chhin-chhiū<sup>n</sup> thau chit jít boah tò-kha ê tōa-thúi lâi-bīn pêng, tē jī jít chià<sup>n</sup>-kha, tē sa<sup>n</sup> jít pak-tó, tē sī jít heng-khám kap heng ê pi<sup>n</sup>-á, tē gō jít ka-chiah-āu, tē lák jít chhiú, tē chhit jít m̄-thang boah, tiòh sóe-ék, òa<sup>n</sup> chheng-khì ê lâi-sa<sup>n</sup>. Jiân-āu koh chit pái chiàu téng-bīn ê **chhù-sū** boah iòh kō.

Nā ūi bōe-kham-tit chiáh **súi-gūn**, i-seng ēng chit ê hoat-tō. Koh chit hāng sī tùi phê-hu-nih iòh-ko òe kín-kín khip-siu tī kui seng-khu.

Nā-sī gín-á, ēng iòh-ko boah tī chúí-nî-pò, hē i ê pak-tó, chiah ēng pheng-tò, á-sī hā pak-tó ê tóa ká i pák hó-sè. Ták jít tiòh ēng iòh-ko boah.

Khàn-hō nā ēng chit hō iòh-ko boah pī<sup>n</sup>-lāng ê seng-khu, sī khah hó tiòh ēng chit ki tèk-piát boah iòh-ko ê po-lê-thúi. Khàn-hō m̄-thang ēng ka-kī ê chhiú, kia<sup>n</sup>-liáu òe hō súi-gūn tiòng-tók (tē 209 bīn).

Khip-jip-hoat (吸入法, *Inhalation*): Chit ê hoat-tō sī ēng iòh khip-jip tī hì-chōng-lâi. Ū sa<sup>n</sup> khoán ê hoat:

1. Ēng tèk-piát ê ké-bīn (*mask*) kiò-chòe khip-khì-kiông-hì-khì (吸氣強肺器, *inhaler*). Chit ê ké-bīn khám pī<sup>n</sup>-lāng ê chhiú, ū tóa thang pák hí-āu, á-sī **āu-khok**. Tī lâi-bīn ū **hái-jiông**. Tī hái-jiông-téng thang pià<sup>n</sup> iòh, chiah khip-jip hì-lâi. Pī<sup>n</sup>-lāng nā ū hì-ló, ū-sī ēng chit hō hoat.

2. Ēng chit-ê kòan tóe sio-chúí, chit pêng ēng po-lê-kng hē tī pī<sup>n</sup>-lāng ê chhiú-nih, chiong chúí-kòan khám hō ân, chit pêng kòan ê chhiú, liòh-liòh-á khui hō khong-khì thau-jip-khì, pī<sup>n</sup>-lāng chiū thang chiong sio ê khi khip-jip; á-sī ēng tng chhiú ê chúí-ô iā hó. Chúí-ô-lâi ê chúí tiòh 140 tō F. (60°C.) chiū hó; (tē 183 tō). Tóe kún-chúí tī ô-lâi, chiàu i-seng bēng-lēng, ēng *tinctura benzoini co.* ê iòh 4.0 c.c., (chúí 600.0 c.c.), á-sī 2.0 c.c. ê *creosotum* ê iòh; chit n̄ng khoán sī siau-tók-iòh, pī<sup>n</sup>-lāng khip-jip liáu-āu, i ê hō-chhut ê khi-bī, òe khah hó. Nā bô chit hō kòan, ēng pêng-siông ê tē-kòan, lâi-bīn tóe kún-chúí chham iòh, kah pī<sup>n</sup>-lāng ê chhiú ñg kòan-chhiú lâi khip-jip hit ê khi.

Pī<sup>n</sup>-lāng ê thām á-sī hō-chhut-lâi ê khi-bī m̄-hó, á-sī khi-kng-iām, chiàu i-seng ê bēng-lēng, tiòh tāi-seng chiong i ê bīn-chhng am hō bát, chhin-chhiū<sup>n</sup> báng-tà ê khoán. Tī hit bīn-chhng-pi<sup>n</sup>, ēng hé-chiú-teng á-sī chhàu-iú-teng hiá<sup>n</sup> kún-chúí, chúí-lâi tiòh hē *tinct. benzoin.co.* 4.0 c.c., (chúí 600.0 c.c.); ēng chit ki tng ê kng, hō i thau tī báng-tà-lâi (tē 184 tō). Chit ki kng ê chhiú tiòh lī pī<sup>n</sup>-lāng ê chhiú n̄ng sa<sup>n</sup> chhiòh hng, iā tiòh siat-hoat ēng chit ê thih-chòe ê kè-á, hō i bōe thng-tiòh pī<sup>n</sup>-lāng.

Nā ēng chit ê hoat-tō, khàn-hō m̄-thang lī-khui pī<sup>n</sup>-lāng, kia<sup>n</sup>-liáu hūn-khì.

3. Ū chit khoán ê iòh *amyl nitris*, ū-pī tī tèk-piát ê po-lê tē-á, lóng khám bát-bát. Tī po-lê ê gōa-bīn ēng

pò pau. Beh ēng-ê sí tiòh chiong chit liáp tī<sup>n</sup> hō i phòh, liām-pi<sup>n</sup> hē pī<sup>n</sup>-lâng phī<sup>n</sup>-khang-kháu hō i khip-jip. Khip-jip chit hō iòh ê sí, pī<sup>n</sup>-lâng tiòh the á-sī tó.

Khàn-hō tiòh liòh-liòh-á ũ iòh sèng ê hák-būn, m̄-thang kóng kan-ta chhòng iòh hō pī<sup>n</sup>-lâng chiáh chiū hō-chòe chīn chit. Tiòh sió-khóa chai in-ūi sím-mih iân-kò, chiah hō i chiáh chit ê iòh. M̄-kú sui-jiân chai chit kúi chéng iòh sèng ê kong-iōng, khiok chhian-bān m̄-thang kā lāng kap iòh, á-sī chhòng iòh hō lāng; iā m̄-thang in-ūi ka-kī beh ēng, chiū hó-tá<sup>n</sup> lām-sám kap. Tiòh òe-kì-tit, m̄-thang thia<sup>n</sup> hit hō bô hák-būn ê lāng kóng, khàn-hō chiū-sī i-seng, chiū lām-sám chòe kè hūn ê tãi-chì. Nā khàn-hō ka-kī siū<sup>n</sup> òe chòe i-seng ê tãi-chì, án-ni chiū-sī m̄-chai i ê pún-hūn.

I-tī<sup>n</sup>-lāi khai tē it chōe chí<sup>n</sup>-ê, chiū-sī iòh-kiòh-lāi ê siáu-hùi. Hōan-nā chòe khàn-hō-ê, tiòh siat-hoat chún-chat pó-sioh, chit ê tãi-chì sí khàn-hō só chòe òe tit kàu-ê, iā sí i ê pún-hūn. Só-i iòh m̄-thang sūi-piān lām-sám hē, tì-kàu hō phái<sup>n</sup>-khi, ēng liáu tiòh liām-pi<sup>n</sup> thèh hēng iòh-kiòk thang koh ēng.

Nā khàn-hō òe liū-sim pó-sioh, chiū ũ chōe-chōe hoat; chhin-chhiū<sup>n</sup> pī<sup>n</sup>-lâng bīn-á-jit eng-kai tiòh òa<sup>n</sup> iòh, nā kin-á-jit ê iòh tām-pòh bô kàu, chiū m̄-bián koh kap, á-sī bīn-á-chài beh thè tī<sup>n</sup> ê pī<sup>n</sup>-lâng, kin-á-jit iā m̄-bián koh kā i kap kè-thâu. Pī<sup>n</sup>-lâng nā chiáh iòh iáu-bē liáu, i-seng ũ koh òa<sup>n</sup> iòh hō i, khàn-hō tiòh chiong chhun ê iòh, thèh hēng iòh-kiòk, m̄-thang phah-sng.

Tī chia beh iok-liòk kóng-khí kúi-nā khoán ê iòh, chiàu i ê chok-iōng lái kì:

An-bú-iòh (安撫藥, *Sedatives*): Chit hō iòh sí chí thià<sup>n</sup>, á-sī thè-iām ê lō-ēng. Ū-sí kiò-chòe siáu-iām-che.

Bá-chùi-iòh (麻醉藥, *Anaesthetics*): Chiah-ê sí beh hō lāng m̄-chai thià<sup>n</sup>. Ū-ê hō lāng òe khùn-tit; lóng m̄-chai-lāng, kiò-chòe chōan-sin-bá-chùi-iòh; ũ-ê hō hit ê ēng ê só-chài bá-pi, kiò-chòe kiòk-pō-bá-chùi-iòh.

Chí-huih-iòh (止血藥, *Styptics*): Chí lâu huih ê lō-ēng.

Chhui-bīn-iòh (催眠藥, *Hypnotics*): Sí hō lāng khah òe khùn-tit.

Hā-che (siá-iòh) (下劑, *Aperients*): Sí beh hō tãi-piān òe thong.

Hoat-kōa<sup>n</sup>-iòh (發汗藥, *Diaphoretics*): Sí beh hō lāng lâu kōa<sup>n</sup>, tùi án-ni òe thè jiát.

Kái-jiát-iòh (解熱藥, *Antipyretics*): Sí thè jiát ê iòh.

Kái-tòk-iòh (解毒藥, *Antidotes*): Sí kái tòk, hō i bōe tòk.

Kiông-chòng-iòh (強壯藥, *Tonics*): Chiah-ê sí pó-che, ũ-ê kám-tōng ũi, sim-chōng, á-sī náu, lóng sí kiông-chòng-iòh.

Kiông-sim-che (強心劑, *Heart stimulants*): Chiah-ê òe hō sim phok-tōng khah chiàu chhù-sū khah íong.

Khu-hong-iòh (驅風藥, *Carminatives*): Chiah-ê sí beh tùi ũi-nih pang-chān hong chhut-lái.

Khu-thām-che (祛痰劑, *Expectorants*): Chiah-ê sí beh hō thām khah khòai khak-chhut.

Lī-jiō-che (利尿劑, *Diuretics*): Chiah-ê sí beh hō jiō khah chōe.

Siau-tòk-iòh (消毒藥, *Antiseptics*): Chiah-ê sí òe phah-biát bī-seng-bút.

Siok-tōng-iòh (縮瞳藥, *Myotics*): Chiah-ê òe hō tōng-khóng kiu sòe.

Siu-liám-che (收斂劑, *Astringents*): Chiah-ê hō huih-kng sok-óa, chiū liām-mòh iā siu sok.

Tìn-keng-iòh (鎮痙藥, *Antispasmodics*): Chiah-ê sí beh ũ-hông, á-sī tī-liáu keng-lóan pī<sup>n</sup>, bô lūn tùi sím-mih iân-kò khí.

Tìn-thòng-iòh (鎮痛藥, *Anodynes*): Chiah-ê sí chòe chí thià<sup>n</sup> ê lō-ēng.

Tōng-khóng-sàn-tāi-iòh (瞳孔散大藥, *Mydriatics*): Chiah-ê òe hō tōng-khóng khoah tōa.

Thò-che (吐劑, *Emetics*): Chit khoán iòh ê lō-ēng chiū-sī beh hō pī<sup>n</sup>-lâng ũi-nih ê mih thò-chhut-lái. Sí

in-ūi chiáh bōe siau-hòa; á-sī ū chiáh tók-iòh; á-sī gín-á ê khi-kng-lāi ū thâm, sàu bōe chhut-lāi, nā hō i thò chiū khah khòai chhut-lāi.

Hō pī<sup>n</sup>-lâng iòh ê sī, i-seng bô êng thang khòa<sup>n</sup> chiong chit ê iòh só hián-chhut ê kong-hāu, á-sī pī<sup>n</sup>, piàn khoán sím-mih chêng-chōng, só-i i-seng tiòh khò khàn-hō ê kiàn-sek khòa<sup>n</sup> iòh ū chiàu i ê chok-iōng á-bô. Kiám-chhái ū láng chiáh bô hāng iòh liáu-āu, só hián-chhut ê hāu-giām kap pêng-siōng lí koh-iū<sup>n</sup>; chit-ê kiò-chòe hit ê láng koan-hē tī hit ê iòh ū tèk-ī<sup>n</sup>-chit (特異質, *idiosyncrasy*). Chhin-chhiū<sup>n</sup> láng nā chiáh chit sut-á a-phiàn ê lūi, liām-pi<sup>n</sup> tiòng-tók. Tùi án-ni thang khòa<sup>n</sup>, khàn-hō eng-kai tiòh liòh-liòh-á bat iòh ê sèng; nā khòa<sup>n</sup>-kì<sup>n</sup> pī<sup>n</sup>-lâng hián-chhut ū koh-iū<sup>n</sup> ê chêng-chōng, i tiòh ká i-seng kóng, thèng-hāu ū hoan-hù, chiahang thang koh hō i.

Lēng-gōa ū chit khoán ê iòh, siat-sú lián chiap-sòa kúi-nā jit, chiáh liáu chiū hit ê iòh bô sùi-sī pài-chhut, hóan-tng chek-chū tī seng-khu-lāi, tì-kàu ū tiòng-tók ê chêng-chōng hián-chhut; chit-ê kiò-chòe thiok-chek-chok-iōng (蓄積作用, *accumulative action*). *Digitalis* sī chit khoán ê iòh. Pī<sup>n</sup>-lâng nā chiáh *digitalis* sa<sup>n</sup> lé-pài-kú, tiòh láng chit lé-pài chiahang thang koh chiáh.

Koh ū chit khoán ê iòh í-keng chiáh kúi-nā jit chiū òe chiá<sup>n</sup> iòh ê kòai<sup>n</sup>-sì, sòa ài chiáh khah ke, chiahang òe kì<sup>n</sup>-chhut kong-hāu. Chit khoán ê iòh sī a-phiàn, tín-thòng-iòh, chhui-bîn-iòh, lóng siòk tī chit lūi, kiò-chòe iòh-kòai<sup>n</sup>-sì (藥慣, *tolerance*). Nā pī<sup>n</sup>-lâng teh chiahang chit lūi ê iòh, m̄-thang ká i kóng sī sím-mih iòh, kia<sup>n</sup>-liáu òe giàn.

Tī chia beh kì kúi-nā hāng iòh tiòng-tók ê chêng-chōng; bô lūn sī chiáh chit pái kè-thâu, á-sī tùi thiok-chek-chok-iōng ê in-toa<sup>n</sup>, beh tãi-liók kì. Chit pún chheh sī in-ūi sòe pún, só-i tī chiahang tãi-liók siá nā-tiā<sup>n</sup>.

*Acetanilidum* (*Antifebrin*): Chhi<sup>n</sup>-lâm-sek, hō-khip kín, áu-thò, kha chhiú léng, m̄-chai-lâng, ū-sī hoat-chín.

*Acid salicylicum* (khòa<sup>n</sup> *salicylicum*).

*Antipyrine* (khòa<sup>n</sup> *phenazonum*).

*Arsenicum*: Kip-sèng ê tiòng-tók: áu-thò, sim-koa<sup>n</sup>-thâu thiá<sup>n</sup>, hā-lī, pak-tó kiau-ká thiá<sup>n</sup>, kha-tó keng-lóan thiá<sup>n</sup>, náu-lék-thoat-sit. Bān-sèng ê tiòng-tók: Chiàu téng-bîn ê chêng-chōng, chóng-sī khah khin; iā sîn-keng-iām ê chêng-chōng, kap phê-hu piàn-sek.

*Aspirin*: Chhin-chhiū<sup>n</sup> salicylates, khòa<sup>n</sup> ē-bîn.

*Bromidum*: Gōng, bô ài tín-tāng, hō-chhut ê khi-bī pháí<sup>n</sup> bī, chhiú léng, mēh-phok chin bān, ū-sī hun-sūi, hoat-chín.

*Choral hydras*: Tông-khóng-siu-siok, ài khùn, chhi<sup>n</sup>-lâm-sek; chit hō sī siòk tī kip-sèng-ê. Nā-sī bān-sèng-ê, ū chhi-kek-tiòh siau-hòa-khi ê chêng-chōng, hoat-chín.

*Cocaina*: Kip-sèng ê tiòng-tók, ū keng-lóan, tông-khóng-sàn-tāi, mēh-phok kap hō-khip kín. Thé-un khah kòai<sup>n</sup> (100°F. 37.8°C.), bô lōa-kú put-séng-jîn-sū. Bān-sèng ê: Lâng m̄-ài siū<sup>n</sup> tãi-chì, bô sím-mih cheng-sîn ê khoán, seng-khu khah sán, phê-hu ū koh-iū<sup>n</sup> ê chhi-kek, chhin-chhiū<sup>n</sup> bák-sat teh sô; ū-sī ū chhò-kak (錯覺, *hallucinations*) ê khoán-sit.

*Digitalis*: Áu-thò, chhui-ta, pak-tó thiá<sup>n</sup>, ū-sī hā-lī, thâu-khak thiá<sup>n</sup>, náu-lék-thoat-sit, khòa<sup>n</sup> bô bēng, hī-khang lòng-lòng-kiò, **chiam-bōng** (譫妄, *delirium*). Hō-khip kap mēh-phok bān, jiò chió-chiò. Lō-bé hun-sūi (昏睡, *coma*) chiū kè-óng.

*Hydrargyrum* (khòa<sup>n</sup> tē 209 bîn).

*Iodidum*: Phī<sup>n</sup>-khang sat-sat, nōa-ék khah chōe, lâu-bák-iú, nā-âu thiá<sup>n</sup>, chhin-chhiū<sup>n</sup> kám-tiòh ê khoán.



Hoat-chín.

*Morphia, Opium*: Kip-sèng-ê: Chui, ài khùn, bô lōa-kú hun-sūi, ho-khip bān, nā bô ēng tī-liâu-hoat, òe sí. Tông-khóng kiu chin sòe. Bān-sèng-ê: Chit hō sī tui láng chiáh a-phian. I ê sèng piàn khoán, kóng pèh-chhat, sío tá<sup>n</sup>, bô ài chiáh, pak-tó thià<sup>n</sup>, pì-kiat, seng-khu chin sán.

*Quinina*: Hī-khang tâng, lòng-lòng kiò, thâu-khak tâng koh hín; nā-sī khah siong-tiōng, khòa<sup>n</sup> bōe bēng bōe kià<sup>n</sup> lō.

*Phenacetinum*: Náu-lèk-thoat-sit, chhi<sup>n</sup>-lâm-sek, ho-khip bān, thò, hā-lī, thâu-khak hín. Jiō ū-sī khah o.

*Phenazonum (Antipyrine)*: Kap *phenacetinum* tâng chêng-chông.

*Salicylicum (Acidum salicylicum, Sodii salicylas, Aspirin)*: Thâu-khak thià<sup>n</sup>, hī-khang tâng, lòng-lòng-kiò. Âu-lâi áu-thò, mèh-phok bān, chiam-bōng. Nā-sī chin siong-tiōng òe lâu pī<sup>n</sup>-huih, mèh-phok kap ho-khip òe bô chiàu chhù-sū, bô lōa-kú hun-sūi, kè-óng.

*Santoninum*: Chiáh kè-thâu, khòa<sup>n</sup> mih sī ng-sek, jiō tãi-seng pī<sup>n</sup> ng-sek, âu-lâi o-sek. Hán-tit khòa<sup>n</sup> áu-thò, sià-pak, chiam-bōng kap náu-lèk-thoat-sit.

*Strychnina (Nux vomica)*: Kun-bah òe chhoah, âu-lâi chin kiōng ê keng-lōan, chhiú òe lāk óa, kha chhun tit, seng-khu ták ūi ê kun-bah chià<sup>n</sup> tēng. Lâng beh sí ê sí iā chai-chai.

*Sulphonal*: Put-séng-jîn-sū, mèh-phok kap ho-khip bān. Jiō piàn khah o.

Tiōng-tòk ê tī-liâu-hoat: Tī chia kan-ta tãi-liók kóng-khi chit nng hāng. Khàn-hō nā khòa<sup>n</sup> pī<sup>n</sup>-lâng tiōng-tòk, tiòh lâm-pi<sup>n</sup> chhe láng chhià<sup>n</sup> i-seng lāi i-tī. I-seng bē lāi ê tãi-seng; khàn-hō pún-sin òe thang tãi-seng chòe chit nng hāng.

Tiōng-tòk ê iòh chóng hun nng khoán:

1. Òe gāi-tiòh phê-hu, chhui-tùn, chhui-lāi, chiáh-tō, ūi, hō i òe phòah kang hiú-nōa (*irritants*).

2. Chit khoán tiōng-tòk ê iòh bōe siong-hāi tēng-bīn só kì ê pō-ūi hō i phòah kang (*narcotics*).

Siat-sú nā bô phòah-khang, khàn-hō thang chiong thò-che hō i chiáh, ng-bāng ūi-nih ê tók-iòh òe thò-chhut. Chóng-sī nā ū phòah kang m̄-thang ēng thò-che, kia<sup>n</sup>-liáu ūi phòah.

Só beh ēng ê thò-che kì tī ē-bīn:

1. lām: Ēng pēng-siōng chiáh-iām nng thng-sí, phàu iú<sup>n</sup> tī óa<sup>n</sup>-pò<sup>n</sup> lâ-lùn-sio-chúi-nih (500.0 c.c.).

2. **Kài-lòah**: Ēng tām-pòh lâ-lùn-sio-chúi kap chit thng-sí ê kài-lòah lā hō i chiáu, chiah ke-thi<sup>n</sup> óa<sup>n</sup>-pò<sup>n</sup> lâ-lùn-sio-chúi (500.0c.c.), lā hō i chiáu.

3. *Zinci sulphas*: Ēng *zinci sulphas* 1.0 gram, lâ-lùn-sio-chúi óa<sup>n</sup>-pò<sup>n</sup>, lā hō i sò<sup>n</sup>.

4. *Ipecacuanha*: Ēng *vinum ipecacuanhae* 15.0 c.c. chì 20.0 c.c., pià<sup>n</sup> tī pò<sup>n</sup>-ó<sup>n</sup> lâ-lùn-sio-chúi-nih.

Chiàu tēng-bīn só kì sī hāng ê tiōng-kan, thèh chit hāng seng chhòng hō pī<sup>n</sup>-lâng chiáh, chiàu pī<sup>n</sup>-lâng ê lèk-liōng hō i chiáh, ke-thi<sup>n</sup> tām-pòh bô iàu-kín. Kàu thò-chhut liáu-âu chiah soah. Bô lūn tiōng sím-mih tók, thang ēng gū-leng, á-sī koe-nng phah hō i sò<sup>n</sup>, á-sī tē, ko-phi-tē, chhòng hō i lim-lòh-khì, hō tók òe hūn-háp tī chiáh ê mih, khah bōe choan-choan siong-hāi-tiòh ūi.

Lâng nā tiōng a-phian tók, chiū òe chiām-chiām ài khùn, iàu-kín tiòh siat-hoat hō i ūn-tōng, m̄-thang thēng. Tiòh nng ê lāng chhah i siang **pēng** ê koh-ē-khang, hō i kià<sup>n</sup>, m̄-thang hō i tó-teh. Seng-khu ê i-chiū<sup>n</sup> tiòh tháu-khui hō i lēng. Tī bīn-nih ká i hiú léng-chúi hō i òe chhi<sup>n</sup>, bōe hūn-khì. I-seng beh ēng sóe-ūi ê hoat-tō. Só tiòh ū-pī ê iòh-chúi sī *potassii permanganas* 5.0 gm., lâ-lùn-sio-chúi 2,000.0 c.c. Sóe-ūi ê hoat chiàu tē 247 bīn. Sóe liáu, chiah chhòng kàu ê tē, á-sī ko-phi-tē hō i chiáh, á-sī ēng chiah ê mih kòan-tng. Iā



tiòh ēng ù-sio ê hoat, hō i ê seng-khu sio-lō.

I-seng khui iòh ê sí, ū-sí ēng kiám-pit ê jī; kì tī ē-tóe-ê sī phó-thong teh ēng-ê:

Kiám-pit ê jī.	Lô-má òe.	Eng-kok òe.	Ē-mng òe.
aa	ana	of each	múi iū <sup>n</sup> .
A.C.	ante cibū	before food	sit-chêng.
Ad lib.	ad libitum	to the amount desired	ài ēng lōa-chōe tiòh ēng.
Alt. die	alternis diebus	alternate days	keh chit jit.
Aq.	aqua	water	chúi.
Aq. dest.	aqua destillata	distilled water	cheng-liū-chúi.
B. i. d.	bis in die	twice a day	chit jit nng pái.
C., á-sī c	cum	with	sa <sup>n</sup> -kap
Collun.	Collunarium	nasal douche	sóe phī <sup>n</sup> -khang-iòh
Collyr.	Collyrium	eye wash	sóe bák-chiu-iòh.
Cras	cras	to-morrow	bīn-á-jit.
c.c.	cubic centimetre (Hoat-kok òe)	cubic centimetre	lip-hong pah-hūn-bí-tút.
Dil.	dilutus	diluted	thàu khah pòh
Ex. aq.	ex aqua	in water	tī chúi-nih.
F.		Fahrenheit	
Ft.	fiat	let there be made	tiòh chòe.
Garg.	gargarisma	gargle	sóa-kháu-iòh.
grm.	gramme (Hoat-kok òe)	gram	óa.
Gutt.	gutta	a drop	chit tih.
Haust.	haustus	a draught	chòe chit-ē lim.
H.s.	hora somni	at sleeping time	beh khùn ê sí.
Hyp.	hypo derma	hypodermic	phê-ē.
Inject.	injectio	injection	chù-siā.
Lin.	linimentum	liminent	thui ê iòh.
Liq.	liquor	solution	iū <sup>n</sup> -èk.
Lot.	lotio	lotion	sóe ê iòh-chúi.
M.	mane	in the morning	chá-khí.
Mist.	mistura	mixture	chiáh ê iòh-chúi.
M. d. u.	more dictu utendum	to be used as directed	tiòh chiàu bēng-lēng lái ēng.
N.	nocte	at night	mī-sí.
O.H.	omni hora	every hour	múi chit tiám-cneng.
Ol	oleum	oil	iū.
O.M.	omni mane	every morning	múi chá-khí.
O.N.	omni nocte	every hour	múi ê-hng-sí.
Pig.	pigmentum	pigment, paint	chhat-iòh.
Pil.	pilula	pill	iòh-òan.

P.C.	post cibum	after food	sit-āu.
P.R.N.	pro re nata	occasionally	ū-sí, sūi-sí.
Pulv.	pulvis	powder	iòh-hún.
Q.H.	quartis horis	every four hours	múi sì tiám-cheng.
Q.S.	quantum sufficit	as much as necessary	kai tiòh ēng lōa-chōe tiòh ēng.
R.	recipe	take	thèh.
Rep.	repetatur	repeat	koh-chài chhòng.
Sig.	signetur	let it be labelled	tiòh siá tī iòh phiau.
S.O.S.	sí opus sit	if necessary	kai ēng, chiū tiòh ēng.
Stat.	statim	immediately	liâm-pī <sup>n</sup> .
Sum.	sumendum	let it be taken	tiòh thèh, á-sī tiòh chiáh.
Supp.	suppositorium	suppository	chō-iòh.
T.D.S.	ter in die sumendum	let it be taken 3 times a day	múi jít 3 pái.
Tinct., tr.	tinctura	tincture	teng-ki-che, iòh-chiú-lūi.
Ung.	unguentum	ointment	iòh-ko.
Vin.	vinum	wine	phû-tô-chiú.

