
**Traditional Chinese medicine —
Priority list of single herbal medicines
for developing standards**

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 249, *Traditional Chinese medicine*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

Being a significant part of traditional medicine systems and general health services, traditional Chinese medicine is estimated to be used in over 180 countries and regions around the world. This is reflected by the statistics cited from the WHO report that there are 4 billion people in the world using herbal medicines, accounting for 80 % of the total world population. Asia, North America, and Europe are regarded as the major markets for herbal medicines. Moreover, incomplete Chinese customs statistics show that the import and export of herbal medicine products in China was worth over 4,7 billion USD in 2015. Therefore, it is very important to develop globally harmonized standards in order to ensure the safety of consumers. In particular, those herbal medicines which have been reported to cause adverse drug reactions (ADR) are drawing much attention from national health administrations.

There are a great number of single herbs on the market; for instance, 618 kinds of herbs have been included in the *Pharmacopoeia of the People's Republic of China*. Currently, organizations, regions and countries including ISO, WHO, the European Union, China, Japan, Korea, the USA, the UK and Thailand are making valuable contributions by developing standards for single herbs. This document presents a list of single herbal medicines in order of priority for the purposes of developing standards on single herbs in a scientific and orderly manner. This document can be used as a reference by any organization wishing to develop standards on single herbal medicines.

The following factors have been considered in setting the priorities:

- the trade volume of each single herbal medicine in the global market;
- whether the herbal medicine is recorded by the *Pharmacopoeia of the People's Republic of China*, *Hong Kong Chinese Materia Medica Standards*, the *Japanese Pharmacopoeia*, the *Korean Pharmacopoeia*, the *European Pharmacopoeia*, the *United States Pharmacopoeia* or the *Thai Herbal Pharmacopoeia*;
- whether there are potential risks from its use;
- whether the herbal medicine is listed in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)^[27];
- opinions from experts.

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Traditional Chinese medicine — Priority list of single herbal medicines for developing standards

1 Scope

This document provides a reference of single herbal medicines in order of their priority in the development of international standards.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

4 Principles

4.1 Herbal medicines which have a large international trading value are listed as high priority.

4.2 Standards of common herbal medicines recorded in the *Pharmacopoeia of the People's Republic of China*, *Hong Kong Chinese Materia Medica Standards*, the *Japanese Pharmacopoeia*, the *Korean Pharmacopoeia*, the *European Pharmacopoeia*, the *United States Pharmacopoeia* and the *Thai Herbal Pharmacopoeia* are listed as high priority.

4.3 Herbal medicines that have safety concerns, such as those widely reported to cause ADR, are listed as high priority.

4.4 Single herbal medicines for which there are existing ISO standards are listed as high priority.

4.5 Herbal medicines which are included in CITES are listed as low priority.

5 Technical indexes

5.1 International trading

[Table 1](#) provides information on single herbal medicines which had a large international trading value in China from 2012 to 2016 (sorted by export value).

Table 1 — The top 30 average export values of single herbal medicines in China from 2012 to 2016

Rank	Herbal name	Pharmaceutical name	Chinese name	English name	Average export value (RMB)
1	<i>Panax ginseng</i> root	ginseng radix et rhizoma	人参	ginseng	126 734 151,80
2	<i>Lycium barbarum</i> fruit	lycii fructus	枸杞子	barbary wolfberry fruit	94 077 843,40
3	<i>Rehmannia glutinosa</i> root	rehmanniae radix	地黄	rehmannia root	44 922 908,20
4	<i>Codonopsis pilosula</i> root/ <i>Codonopsis pilosula</i> var. <i>modesta</i> root/ <i>Codonopsis tangshen</i> root	codonopsis radix	党参	tangshen	41 610 730,40
5	<i>Atractylodes macrocephala</i> rhizome	atractylodis macrocephalae rhizoma	白术	largehead atractylodes rhizome	38 199 927
6	<i>Poria cocos</i> sclerotium	poria	茯苓	Indian bread	36 716 994,40
7	<i>Chrysanthemum morifolium</i> capitulum	chrysanthemi flos	菊花	chrysanthemum flower	34 606 367
8	<i>Ligusticum chuanxiong</i> rhizome	chuanxiong rhizoma	川芎	Szechwan lovage rhizome	31 187 826,60
9	<i>Paeonia lactiflora</i> root	paeoniae radix alba	白芍	white peony root	27 389 650,20
10	<i>Panax notoginseng</i> root and rhizome	notoginseng radix et rhizoma	三七	sanchi	25 725 161,60
11	<i>Pinellia ternata</i> tuber	pinelliae rhizoma	半夏	pinellia tuber	24 263 936,40
12	<i>Astragalus membranaceus</i> var. <i>mongholicus</i> root/ <i>Astragalus membranaceus</i> root	astragali radix	黄芪	milkvetch root	22 314 041,40
13	<i>Glycyrrhiza glabra</i> root and rhizome/ <i>Glycyrrhiza inflata</i> root and rhizome/ <i>Glycyrrhiza glabra</i> root and rhizome	glycyrrhizae radix et rhizoma	甘草	licorice root	21 464 347,60
14	<i>Angelica sinensis</i> root	angelicae sinensis radix	当归	Chinese angelica	21 158 784,20
15	<i>Eucommia ulmoides</i> stem bark	eucommiae cortex	杜仲	eucommia bark	18 636 687
16	<i>Panax quinquefolium</i> root	panacis quinquefolii radix	西洋参	American ginseng	15 863 902
17	<i>Cordyceps sinensis</i> stroma	cordyceps	冬虫夏草	Chinese caterpillar fungus	13 309 846,20
18	<i>Cervus nippon</i> antler/ <i>Cervus elaphus</i> antler	cervi cornu pantotrichum	鹿茸	deer horn	12 191 913
19	<i>Scutellaria baicalensis</i> root	scutellariae radix	黄芩	baical skullcap root	9 314 610,60

NOTE 1 Data from China Chamber of Commerce for Import and Export of Medicines and Health Products (CCCMHPIE).

NOTE 2 Deer horn is a kind of animal material and opium poppy seed is not recorded by the *Pharmacopoeia of the People's Republic of China*, therefore these data will not be counted in the final result.

NOTE 3 Export value of herbal medicine from other countries, if any, will be complemented.

Table 1 (continued)

Rank	Herbal name	Pharmaceutical name	Chinese name	English name	Average export value (RMB)
20	<i>Rheum palmatum</i> root and rhizome/ <i>Rheum tanguticum</i> root and rhizome/ <i>Rheum officinale</i> root and rhizome	rhei radix et rhizoma	大黄	rhubarb	7 318 400,40
21	<i>Papaver somniferum</i> seed	papaveris semen	罂粟子	opium poppy seed	6 819 266,80
22	<i>Sophora japonica</i> flower and flower bud	sophorae flos	槐花	pagodatree flower	5 297 235,80
23	<i>Fritillaria cirrhosa</i> bulb/ <i>Fritillaria unibracteata</i> bulb/ <i>Fritillaria przewalskii</i> bulb/ <i>Fritillaria delavayi</i> bulb/ <i>Fritillaria taipaiensis</i> bulb/ <i>Fritillaria unibracteata</i> var. <i>wabuensis</i> bulb/ <i>Fritillaria thunbergii</i> bulb	fritillariae cirrhosae bulbus/ <i>fritillariae thunbergii</i> bulbus	川贝母/浙贝母	tendrilleaf fritillary bulb/thunberg fritillary bulb	4 263 230,20
24	<i>Coptis chinensis</i> rhizome/ <i>Coptis deltoidea</i> rhizome/ <i>Coptis teeta</i> rhizome	coptidis rhizoma	黄连	golden thread	4 172 511,20
25	<i>Adenophora tetraphylla</i> root/ <i>Glehnia littoralis</i> root	adenophorae radix/glehniae radix	南/北沙参	fourleaf ladybell root/coastal glehnia root	3 240 574,80
26	<i>Ephedra sinica</i> stem/ <i>Ephedra intermedia</i> stem/ <i>Ephedra equisetina</i> stem	ephedrae herba	麻黄	ephedra	2 995 217,80
27	<i>Curcuma longa</i> rhizome	curcumae longae rhizoma	姜黄	turmeric	2 667 216,40
28	<i>Gastrodia elata</i> tuber	gastrodiae rhizoma	天麻	tall gastrodia tuber	2 239 951,60
29	<i>Sterculia lychnophora</i> seed	sterculiae lychnophorae semen	胖大海	boat-fruited sterculia seed	1 922 922,20
30	<i>Crocus sativus</i> stigma	croci stigma	西红花	saffron	1 864 890,40

NOTE 1 Data from China Chamber of Commerce for Import and Export of Medicines and Health Products (CCCMHP).)

NOTE 2 Deer horn is a kind of animal material and opium poppy seed is not recorded by the *Pharmacopoeia of the People's Republic of China*, therefore these data will not be counted in the final result.

NOTE 3 Export value of herbal medicine from other countries, if any, will be complemented.

5.2 Single herbal medicines recorded in pharmacopoeias

In total there are 301 kinds of single herbal medicines recorded at least twice among the *Pharmacopoeia of the People's Republic of China*, *Hong Kong Chinese Materia Medica Standards*, the *Japanese Pharmacopoeia*, the *Korean Pharmacopoeia*, the *European Pharmacopoeia*, the *United States Pharmacopoeia* and the *Thai Herbal Pharmacopoeia* (see Table 2). There are 253 kinds of single herbal medicines that are recorded both in the *Pharmacopoeia of the People's Republic of China* and *Hong Kong Chinese Materia Medica Standards*, 92 recorded both in the *Pharmacopoeia of the People's Republic of China* and the *Japanese Pharmacopoeia*, 104 recorded both in the *Pharmacopoeia of the People's Republic of China* and the *Korean Pharmacopoeia*, 64 recorded both in the *Pharmacopoeia of the People's Republic of China* and the *European Pharmacopoeia*, 20 recorded both in the *Pharmacopoeia of the People's Republic of China* and the *United States Pharmacopoeia* and 18 recorded both in the *Pharmacopoeia of the People's Republic of China* and the *Thai Herbal Pharmacopoeia*.

Table 2 — Single herbal medicines recorded in seven pharmacopoeias or standards

Occurrences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
6	<i>Atractylodes chinense</i> rhizome/ <i>Atractylodes lancea</i> rhizome	atractylodis rhizoma	苍术	atractylodes rhizome	x	x	x	x	x		x	
6	<i>Curcuma longa</i> rhizome	curcumae longae rhizoma	姜黄	turmeric	x	x	x	x	x		x	<i>Curcuma domestica</i> rhizome
6	<i>Polygonum multiflorum</i> root tuber	polygoni multiflori radix	何首乌	fleeceflower root	x	x	x	x	x	x		
6	<i>Salvia miltiorrhiza</i> root and rhizome	salviae miltiorrhizae radix et rhizoma	丹参	danshen root	x	x	x	x	x	x		
6	<i>Schisandra chinensis</i> fruit	schisandrae chinensis fructus	五味子	Chinese magnoliavine fruit	x	x	x	x	x	x		
6	<i>Zingiber officinale</i> rhizome	zingiberis rhizoma	干姜	zingiber (dried ginger)	x		x	x	x	x	x	
5	<i>Anemarrhena asphodeloides</i> rhizome	anemarrhenae rhizoma	知母	common anemarrhena rhizome	x	x	x	x	x			
5	<i>Angelica dahurica</i> root/ <i>angelica dahurica</i> root	angelicae dahuricae radix	白芷	dahurian angelica root	x		x	x	x		x	
5	<i>Areca catechu</i> seed	arecae semen	槟榔	areca seed	x	x	x	x			x	
5	<i>Astragalus membranaceus</i> var. <i>mongolicus</i> root/ <i>Astragalus membranaceus</i> root	astragli radix	黄芪	milkvetch root	x	x	x	x	x			
Key CHP <i>Pharmacopoeia of the People's Republic of China</i> HKS <i>Hong Kong Chinese Materia Medica Standards</i> JP <i>Japanese Pharmacopoeia</i> KP <i>Korean Pharmacopoeia</i> EUP <i>European Pharmacopoeia</i> USP <i>United States Pharmacopoeia</i> THP <i>Thai Herbal Pharmacopoeia</i>												

Table 2 (continued)

Occurrences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
5	<i>Capsicum annuum</i> fruit	capsici fructus	辣椒	hot pepper	x		x	x	x		x	<i>Capsicum annuum</i> var. <i>minimum</i> fruit/ <i>Capsium frutescens</i> fruit/ <i>Capsicum minimum</i> fruit/ <i>Capsicum fastigiatum</i> fruit
5	<i>Carthamus tinctorius</i> flower	carthami flos	红花	safflower	x	x	x	x	x			
5	<i>Cassia angustifolia</i> leaf/ <i>Cassia acutifolia</i> leaf	sennae folium	番泻叶	senna leaf	x	x	x	x	x			<i>Cassia senna</i> dried leaflet
5	<i>Cassia obtusifolia</i> seed/ <i>cassia tora</i> seed	cassiae semen	决明子	cassia seed	x	x	x	x			x	
5	<i>Cinnamomum cassia</i> bark	cinnamomi cortex	肉桂	cassia bark	x	x	x	x	x			<i>Cinnamomum verum</i> bark
5	<i>Codonopsis pilosula</i> root/ <i>Codonopsis pilosula</i> var. <i>modestata</i> root/ <i>Codonopsis tangshen</i> root	codonopsis radix	党参	tangshen	x	x	x	x	x			
5	<i>Coix lacrymajobi</i> var. <i>mayuen</i> kernel	coicis semen	薏苡仁	coix seed	x		x	x	x	x		<i>Coix lacrymajobi</i> ssp. <i>mayuen</i> kernel
Key CHP Pharmacopoeia of the People's Republic of China HKS Hong Kong Chinese Materia Medica Standards JP Japanese Pharmacopoeia KP Korean Pharmacopoeia EUP European Pharmacopoeia USP United States Pharmacopoeia THP Thai Herbal Pharmacopoeia												

Table 2 (continued)

Occur- rences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
5	<i>Dioscorea opposita</i> rhizome	dioscoreae rhizoma	山药	common yam rhizome	x		x	x	x	x		<i>Dioscorea japonica</i> rhizome/ <i>Dioscorea</i> <i>bataatas</i> rhizome/ <i>Di-</i> <i>oscorea polystachya</i> rhizome
5	<i>Ephedra sinica</i> stem/ <i>Ephedra intermedia</i> stem/ <i>Ephedra equi-</i> <i>setina</i> stem	ephedrae herba	麻黄	ephedra	x	x	x	x	x			
5	<i>Eucommia ulmoides</i> bark	eucommiae cortex	杜仲	eucommia bark	x	x	x	x	x			
5	<i>Foeniculum vulgare</i> fruit	foeniculi fructus	小茴香	fennel	x		x	x	x		x	<i>Foeniculum vulgare</i> ssp. <i>vulgare</i> fruit
5	<i>Lycium barbarum</i> fruit	lycii fructus	枸杞子	barbary wolfberry fruit	x		x	x	x	x		<i>Lycium chinense</i> fruit
5	<i>Panax ginseng</i> root	ginseng radix et rhi- zoma	人参	ginseng	x	x	x	x	x			
5	<i>Prunella vulgaris</i> fruit-spike	prunellae spica	夏枯草	common selfheal fruit-spike	x	x	x	x	x			<i>Prunella vulgaris</i> var. <i>lilacina</i> spike
5	<i>Pueraria lobata</i> root	puerariae lobatae radix	葛根	kudzuvine root	x	x	x	x	x			
5	<i>Rehmannia glutinosa</i> root	rehmanniae radix	地黄	rehmannia root	x	x	x	x		x		<i>Rehmannia glutinosa</i> var. <i>purpurea</i> root
Key CHP Pharmacopoeia of the People's Republic of China HKS Hong Kong Chinese Materia Medica Standards JP Japanese Pharmacopoeia KP Korean Pharmacopoeia EUP European Pharmacopoeia USP United States Pharmacopoeia THP Thai Herbal Pharmacopoeia												

Table 2 (continued)

Occurrences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
5	<i>Rheum palmatum</i> root and rhizome/ <i>Rheum tanguticum</i> root and rhizome/ <i>Rheum officinale</i> root and rhizome	rhei radix et rhizoma	大黄	rhubarb	x	x	x	x	x			<i>Rheum palmatum</i> rhizome/ <i>Rheum tanguticum</i> rhizome/ <i>Rheum officinale</i> rhizome/ <i>rheum coreanum</i> rhizome
4	<i>Achyranthes bidentata</i> root	achyranthis bidentatae radix	牛膝	two-toothed achyranthes root	x	x	x	x				
4	<i>Akebia quinata</i> stem/ <i>akebia trifoliata</i> stem/ <i>akebia trifoliata</i> var. <i>australis</i> stem	akebiae caulis	木通	akebia stem	x		x	x	x			
4	<i>Alisma orientale</i> tuber	alismatis rhizoma	泽泻	oriental waterplantain rhizome	x	x	x	x				
4	<i>Amomum villosum</i> fruit/ <i>Amomum villosum</i> var. <i>xanthioides</i> fruit/ <i>Amomum longigulare</i> fruit	amomi fructus	砂仁	villous amomum fruit	x		x	x	x			<i>Amomum xanthioides</i> seed
4	<i>Andrographis paniculata</i> herb	andrographidis herba	穿心莲	common andrographis herb	x	x			x		x	
4	<i>Angelica sinensis</i> root	angelicae sinensis radix		Chinese angelica	x	x			x		x	<i>Angelica archangelica</i> root
4	<i>Atractylodes macrocephala</i> rhizome	atractylodis macrocephalae rhizoma	白术	large-head atractylodes rhizome	x	x	x		x			<i>Atractylodes japonica</i> rhizome

Key

CHP Pharmacopoeia of the People's Republic of China

HKS Hong Kong Chinese Materia Medica Standards

JP Japanese Pharmacopoeia

KP Korean Pharmacopoeia

EUP European Pharmacopoeia

USP United States Pharmacopoeia

THP Thai Herbal Pharmacopoeia

Table 2 (continued)

Occurrences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
4	<i>Aucklandia lappa</i> root	aucklandiae radix	木香	common aucklandia root	x	x			x		x	
4	<i>Bupleurum chinense</i> root/ <i>Bupleurum scorzonifolium</i> root	bupleuri radix	柴胡	Chinese thoroughwort root	x	x	x	x				<i>Bupleurum falcatum</i> root
4	<i>Centella asiatica</i> herb	centellae herba	积雪草	asiatic pennywort herb	x	x			x		x	<i>Centella coriacea</i> herb/ <i>Hydrocotyle asiatica</i> herb/ <i>Hydrocotyle lunata</i> herb/ <i>Trisanthus cochinchinensis</i> herb
4	<i>Cimicifuga heracleifolia</i> rhizome/ <i>Cimicifuga dahurica</i> rhizome/ <i>Cimicifuga foetida</i> rhizome	cimicifugae rhizoma	升麻	largetrifolious bugbane rhizome	x	x	x	x				<i>Cimicifuga simplex</i> rhizome
4	<i>Coptis chinensis</i> rhizome/ <i>Coptis deltoidea</i> rhizome/ <i>Coptis teeta</i> rhizome	coptidis rhizoma	黄连	golden thread	x	x	x	x				<i>Coptis japonica</i> rhizome
4	<i>Cornus officinalis</i> sarcocarp	corni fructus	山茱萸	asiatic cornelian cherry fruit	x	x	x	x				
4	<i>Crocus sativus</i> stigma	croci stigma	西红花	saffron	x	x	x	x				
Key CHP Pharmacopoeia of the People's Republic of China HKS Hong Kong Chinese Materia Medica Standards JP Japanese Pharmacopoeia KP Korean Pharmacopoeia EUP European Pharmacopoeia USP United States Pharmacopoeia THP Thai Herbal Pharmacopoeia												

Table 2 (continued)

Occurrences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
4	<i>Curcuma phaeocalis</i> rhizome/ <i>Curcuma kwangsiensis</i> rhizome/ <i>Curcuma wenyujin</i> rhizome	curcumae rhizoma	莪术	zedoray rhizome	x	x	x	x				<i>Curcuma zedoaria</i> rhizome
4	<i>Cyperus rotundus</i> rhizome	cyperi rhizoma	香附	nutgrass galingale rhizome	x	x	x	x				
4	<i>Drynaria fortunei</i> rhizome	drynariae rhizoma	骨碎补	fortune's drynaria rhizome	x	x		x	x			
4	<i>Euodia rutaecarpa</i> fruit/ <i>Euodia rutaecarpa</i> var. <i>officinalis</i> fruit/ <i>Euodia rutaecarpa</i> var. <i>bodinieri</i> fruit	euodiae fructus	吴茱萸	medicinal euodia fruit	x	x	x	x				<i>Euodia officinalis</i> fruit/ <i>Euodia bodinieri</i> fruit
4	<i>Epimedium brevicornum</i> leaf/ <i>Epimedium sagittatum</i> leaf/ <i>Epimedium pubescens</i> leaf/ <i>Epimedium koreanum</i> leaf	epimedii folium	淫羊藿	epimedium leaf	x	x	x	x				<i>Epimedium wushanense</i> leaf/ <i>Epimedium grandiflorum</i> var. <i>thunbergianum</i> leaf/ <i>Epimedium semper-virens</i> leaf
4	<i>Forsythia suspensa</i> fruit	forsythiae fructus	连翘	weeping forsythia capsule	x	x	x	x				<i>Forsythia viridissima</i> fruit
4	<i>Gardenia jasminoides</i> fruit	gardeniae fructus	梔子	cape jasmine fruit	x		x	x	x			
4	<i>Ginkgo biloba</i> leaf	ginkgo folium	银杏叶	ginkgo leaf	x	x		x	x			
Key CHP Pharmacopoeia of the People's Republic of China HKS Hong Kong Chinese Materia Medica Standards JP Japanese Pharmacopoeia KP Korean Pharmacopoeia EUP European Pharmacopoeia USP United States Pharmacopoeia THP Thai Herbal Pharmacopoeia												

Table 2 (continued)

Occurrences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
4	<i>Glehnia littoralis</i> root	glehniae radix	北沙参	coastal glehnia root	x	x	x	x				
4	<i>Glycyrrhiza uralensis</i> root and rhizome/ <i>Glycyrrhiza inflata</i> root and rhizome/ <i>Glycyrrhiza glabra</i> root and rhizome	glycyrrhizae radix et rhizoma	甘草	licorice root	x	x	x		x			
4	<i>Leonurus japonicus</i> herb	leonuri herba	益母草	motherwort herb	x	x	x	x				<i>Leonurus sibiricus</i> herb
4	<i>Lindera aggregata</i> root tuber	linderae radix	乌药	combined spicebush root	x	x	x	x				<i>Lindera strychnifolia</i> root
4	<i>Lonicera japonica</i> flower	loniceriae japonicae flos	金银花	japanese honeysuckle flower	x	x		x		x		
4	<i>Lycopus lucidus</i> var. <i>hirtus</i> herb	lycopi herba	泽兰	hirsute shiny bugle-weed herb	x	x		x	x			<i>Lycopus lucidus</i> herb
4	<i>Magnolia officinalis</i> bark/ <i>magnolia officinalis</i> var. <i>biloba</i> bark	magnoliae officinalis cortex	厚朴	official magnolia bark	x	x		x	x			<i>Magnolia obovata</i> bark
4	<i>Myristica fragrans</i> kernel	myristicae semen	肉豆蔻	nutmeg	x	x	x	x				
4	processed <i>Aconitum carmichaelii</i> daughter root	aconiti lateralis radix	附子	prepared common monkshood daughter root	x	x	x	x				
4	<i>Paeonia suffruticosa</i> root bark	moutan cortex	牡丹皮	tree peony bark	x	x	x	x				
Key CHP Pharmacopoeia of the People's Republic of China HKS Hong Kong Chinese Materia Medica Standards JP Japanese Pharmacopoeia KP Korean Pharmacopoeia EUP European Pharmacopoeia USP United States Pharmacopoeia THP Thai Herbal Pharmacopoeia												

Table 2 (continued)

Occurrences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
4	<i>Panax ginseng</i> steamed root	ginseng radix rubra	红参	red ginseng	x		x	x		x		
4	<i>Panax notoginseng</i> root and rhizome	notoginseng radix et rhizoma	三七	sanchi	x	x			x	x		<i>Panax pseudoginseng</i> var. <i>notoginseng</i> root
4	<i>Phellodendron amurense</i> bark	phellodendri amurensis cortex	关黄柏	amur cork-tree	x	x	x	x				<i>Phellodendron chinense</i> bark
4	<i>Picrorhiza scrophulariiflora</i> rhizome	picrorhizae rhizoma	胡黄连	figwortflower picrorhiza rhizome	x	x				x	x	<i>Picrorhiza kurrooa</i> root and rhizome
4	<i>Platycodon grandiflorum</i> root	platycodonis radix	桔梗	platycodon root	x	x	x	x				
4	<i>Polygala sibirica</i> root	polygalae radix	远志	thinleaf milkwort root	x	x	x	x				<i>Polygala tenuifolia</i> root
4	<i>Poria cocos</i> sclerotium	poria	茯苓	Indian bread	x		x	x	x			
4	<i>Prunus persica</i> seed/ <i>prunus davidiana</i> seed	persicae semen	桃仁	peach seed	x	x	x	x				<i>Prunus persica</i> var. <i>davidiana</i> seed
4	<i>Saposhnikovia divaricata</i> root	saposhnikoviae radix	防风	divaricate saposhnikovia root	x	x	x	x				<i>Saposhnikovia divaricata</i> root and rhizome
4	<i>Sesamum tenuifolia</i> fruit-spike	schizonepetae spica	荆芥穗	fineleaf schizonepeta spike	x	x	x	x				<i>schizonepeta tenuifolia</i> spike
4	<i>Scutellaria baicalensis</i> root	scutellariae radix	黄芩	baical skullcap root	x	x	x	x	x			
Key												
CHP Pharmacopoeia of the People's Republic of China												
HKS Hong Kong Chinese Materia Medica Standards												
JP Japanese Pharmacopoeia												
KP Korean Pharmacopoeia												
EUP European Pharmacopoeia												
USP United States Pharmacopoeia												
THP Thai Herbal Pharmacopoeia												

Table 2 (continued)

Occurrences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
4	<i>Sinomenium acutum</i> stem/ <i>sinamenium acutum</i> var. <i>cinereum</i> stem	<i>sinomenii caulis</i>	青风藤	orientvine stem	x		x	x	x			
4	<i>Sophora flavescens</i> root	<i>sophorae flavescens radix</i>	苦参	lightyellow sophora root	x	x	x	x				
4	<i>Strychnos nux-vomica</i> seed	<i>strychni semen</i>	马钱子	nux vomica	x	x	x	x				
4	<i>Styrax tonkinensis</i> resin	<i>benzoinum</i>	安息香	benzoin	x		x	x	x			
4	<i>Tribulus terrestris</i> fruit	<i>tribuli fructus</i>	蒺藜	puncturevine caltrop fruit	x	x	x	x				
4	<i>Ziziphus jujube</i> fruit	<i>jujubae fructus</i>	大枣	Chinese date	x		x	x		x		<i>Ziziphus jujube</i> var. <i>inermis</i> fruit/ <i>ziziphus jujube</i> var. <i>hoonensis</i> fruit
3	<i>Acanthopanax gracilistylus</i> root and bark	<i>acanthopanax cortex</i>	五加皮	slenderstyle acanthopanax bark	x	x			x			
3	<i>Actium lappa</i> fruit	<i>arctii fructus</i>	牛蒡子	great burdock achene	x	x		x				
3	<i>Aloe barbadensis</i> juice/ <i>aloe ferox</i> juice	<i>aloe</i>	芦荟	aloes	x		x		x			<i>Aloe jafriana</i> juice/ <i>Aloe spicata</i> juice
3	<i>Alpinia katsumadai</i> seed	<i>alpiniae katsumadai semen</i>	草豆蔻	katsumada galangal seed	x	x		x				
Key CHP <i>Pharmacopoeia of the People's Republic of China</i> HKS <i>Hong Kong Chinese Materia Medica Standards</i> JP <i>Japanese Pharmacopoeia</i> KP <i>Korean Pharmacopoeia</i> EUP <i>European Pharmacopoeia</i> USP <i>United States Pharmacopoeia</i> THP <i>Thai Herbal Pharmacopoeia</i>												

Table 2 (continued)

Occurrences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
3	<i>Angelica pubescens</i> f. <i>biserrata</i> root	angelicae pubescentis radix	独活	doubleteeth pubescent angelica root	x	x			x			
3	<i>Areca catechu</i> pericarp	arecae pericarpium	大腹皮	areca peel	x	x		x				
3	<i>Artemisia annua</i> herb	artemisiae annuae herba	青蒿	sweet wormwood herb	x	x					x	
3	<i>Artemisia scoparia</i> herb/artemisia capillaris flower	artemisiae scopariae herba	茵陈	virgate wormwood herb	x	x	x					
3	<i>Aster tataricus</i> root and rhizome	asteris radix et rhizoma	紫菀	tatarian aster root	x	x		x				
3	<i>Atropa belladonna</i> herb	belladonnae herba	颠茄草	belladonna herb	x		x		x			
3	<i>Belamcanda chinensis</i> rhizome	belamcandae rhizoma	射干	blackberryrhizome	x	x			x			
3	<i>Cibotium barometz</i> rhizome	cibotii rhizoma	狗脊	cibot rhizome	x	x		x				
3	<i>Cinnamomum cassia</i> branch	cinnamomi ramulus	桂枝	cassia twig	x	x				x		
3	<i>Cistanche deserticola</i> fleshy stem / <i>Cistanche tubulosa</i> fleshy stem	cistanches herba	肉苁蓉	desertliving cistanche	x	x	x					<i>Cistanche salsa</i> herb
Key CHP Pharmacopoeia of the People's Republic of China HKS Hong Kong Chinese Materia Medica Standards JP Japanese Pharmacopoeia KP Korean Pharmacopoeia EUP European Pharmacopoeia USP United States Pharmacopoeia THP Thai Herbal Pharmacopoeia												

Table 2 (continued)

Occur- rences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
3	<i>Citrus reticulata</i> pericarp	citri reticulatae peri- carpium	陈皮	dried tangerine peel	x	x				x		
3	<i>Citrus aurantium</i> fruit/ <i>Citrus sinensis</i> fruit	aurantii fructus im- maturus	枳实	immature orange fruit	x	x	x					<i>Citrus aurantium</i> var. <i>daidai</i> fruit/ <i>Citrus</i> <i>natsu-daidai</i> fruit
3	<i>Clematis armandii</i> stem/ <i>Clematis mon- tana</i> stem	clematidis armandii caulis	川木通	armand clematis stem	x	x			x			
3	<i>Commiphora mormol</i> resin/ <i>Commiphora</i> <i>myrrha</i> resin	myrrha	没药	myrrh	x			x	x			
3	<i>Cynomorium songari- cum</i> stem	cynomorii herba	锁阳	songaria cynomorium herb	x	x		x				
3	<i>Dictamnus dasycar- pus</i> root bark	dictamni cortex	白鲜皮	densefruit pittany root-bark	x	x		x				
3	<i>Dioscorea nipponica</i> rhizome	dioscoreae nipponicae rhizoma	穿山龙	nippon yam rhizome	x	x			x			
3	<i>Eclipta prostrata</i> herb	ecliptae herba	墨旱莲	yerbadetajo herb	x	x			x			
3	<i>Equisetum hyemale</i> herb	equiseti hiemalis herba	木贼	common scouring rush herb	x	x			x			<i>Equisetum arvense</i> herb
3	<i>Eriobotrya japonica</i> leaf	eribotryae folium	枇杷叶	loquat leaf	x		x	x				
Key CHP Pharmacopoeia of the People's Republic of China HKS Hong Kong Chinese Materia Medica Standards JP Japanese Pharmacopoeia KP Korean Pharmacopoeia EUP European Pharmacopoeia USP United States Pharmacopoeia THP Thai Herbal Pharmacopoeia												

Table 2 (continued)

Occurrences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
3	<i>Erodium stephanianum</i> herb/ <i>geranium wilfordii</i> herb/ <i>geranium carolinianum</i> herb/	erodii herba/ <i>geranii herba</i>	老鹳草	common heron's bill herb/wilford granes-bill herb	x		x	x				<i>Geranium thunbergii</i> herb
3	<i>Fritillaria cirrhosa</i> bulb/ <i>Fritillaria unibracteata</i> bulb/ <i>Fritillaria przewalskii</i> bulb/ <i>Fritillaria delavayi</i> bulb/ <i>Fritillaria taipaiensis</i> bulb/ <i>Fritillaria unibracteata</i> var. <i>wabuensis</i> bulb	fritillariae cirrhosae bulbus	川贝母	tendrilleaf fritillary bulb	x	x		x				
3	<i>Gastrodia elata</i> tuber	gastrodiae rhizoma	天麻	tall gastrodia tuber	x	x		x				
3	<i>Gentiana manshurica</i> root and rhizome/ <i>Gentiana scabra</i> root and rhizome/ <i>Gentiana triflora</i> root and rhizome/ <i>Gentiana rigescens</i> root and rhizome	gentianae radix et rhizoma	龙胆	Chinese gentian	x	x		x				<i>gentiana manshurica</i> root and rhizome
3	<i>Gleditsia sinensis</i> spine	gleditsiae spina	皂角刺	Chinese honeylocust spine	x	x		x				<i>Gleditsia japonica</i> var. <i>koraensis</i> thorn
Key CHP Pharmacopoeia of the People's Republic of China HKS Hong Kong Chinese Materia Medica Standards JP Japanese Pharmacopoeia KP Korean Pharmacopoeia EUP European Pharmacopoeia USP United States Pharmacopoeia THP Thai Herbal Pharmacopoeia												

Table 2 (continued)

Occurrences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
3	<i>Houttuynia cordata</i> herb	houttuyniae herba	鱼腥草	heartleaf houttuynia herb	x	x	x					
3	<i>Isatis indigotica</i> root	isatidis radix	板蓝根	isatis root	x	x			x			<i>Isatis tinctoria</i> root
3	<i>Juncum effusus</i> stem pith	junci medulla	灯心草	common rush	x	x		x				
3	<i>Kochia scoparia</i> fruit	kochiae fructus	地肤子	belvedere fruit	x	x		x				
3	<i>Ligusticum chuansiong</i> rhizome	chuanxiong rhizoma	川芎	Szechwan lovage rhizome	x	x					x	
3	<i>Lycium chinense</i> root bark/ <i>lycium barbarum</i> root bark	lycii cortex	地骨皮	Chinese wolfberry root-bark	x	x	x					
3	<i>Magnolia biondii</i> flower bud / <i>Magnolia denudata</i> flower bud / <i>Magnolia sprengeri</i> flower bud	magnoliae flos	辛夷	biond magnolia flower	x	x	x					<i>Magnolia salicifolia</i> flower/ <i>Magnolia kobus</i> flower/ <i>Magnolia heptapeta</i> flower
3	<i>Mentha haplocalyx</i> herb	menthae haplocalycis herb	薄荷	peppermint	x		x	x				<i>Mentha arvensis</i> var. <i>piperascens</i> herb
3	<i>Nardostachys jatamansi</i> root and rhizome	nardostachyos radix et rhizome	甘松	nardostachys root	x	x					x	
3	<i>Nelumbo nucifera</i> seed	nelumbinis semen	莲子	lotus seed	x			x				
3	<i>Nelumbo nucifera</i> stamen	nelumbinis stamen	莲须	lotus stamen	x	x					x	<i>Nelumbium speciosum</i> stamen
Key												
CHP Pharmacopoeia of the People's Republic of China												
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EUP European Pharmacopoeia												
USP United States Pharmacopoeia												
THP Thai Herbal Pharmacopoeia												

Table 2 (continued)

Occurrences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
3	<i>Ophiopogon japonicus</i> root tuber	ophiopogonis radix	麦冬	dwarf lilyturf tuber	x	x	x					
3	<i>Paeonia lactiflora</i> root	paeoniae radix alba	白芍	white peony root	x	x				x		
3	<i>Paeonia lactiflora</i> root/paeonia veitchii root	paeoniae radix rubra	赤芍	red peony root	x	x				x		
3	<i>Panax japonicus</i> rhizome	panacis japonici rhizoma	竹节参	japanese ginseng	x	x	x					
3	<i>Peucedanum praeruptorum</i> root	peucedani radix	前胡	hogfennel root	x	x	x					<i>Angelica decursiva</i> root
3	<i>Pharbitis nil</i> seed/ <i>pharbitis pupurea</i> seed	pharbitidis semen	牵牛子	pharbitis seed	x		x	x				
3	<i>Phellodendron chinensis</i> bark	phellodendri chinensis cortex	黄柏	Chinese cork-tree	x	x		x				<i>Phellodendron amurense</i> cortex
3	<i>Phyllanthus emblica</i> fruit	phyllanthi fructus	余甘子	emblic leaflower fruit	x	x					x	
3	<i>Pinellia ternata</i> tuber	pinelliae rhizoma	半夏	pinellia tuber	x		x	x				
3	<i>Piper nigrum</i> fruit	piperis fructus	胡椒	pepper fruit	x	x					x	
3	<i>Plantago asiatica</i> herb/plantago depressa herb	plantaginis herba	车前草	plantain herb	x	x	x					
Key												
CHP Pharmacopoeia of the People's Republic of China												
HKS Hong Kong Chinese Materia Medica Standards												
JP Japanese Pharmacopoeia												
KP Korean Pharmacopoeia												
EUP European Pharmacopoeia												
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THP Thai Herbal Pharmacopoeia												

Table 2 (continued)

Occurrences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
3	<i>Plantago asiatica</i> seed/ <i>plantago depressa</i> seed	plantaginis semen	车前子	plantain seed	x	x	x					
3	<i>Pogostemon cablin</i> herb	pogostemonis herba	广藿香	cablin patchouli herb	x		x	x				
3	<i>Polygonatum kingianum</i> rhizome/ <i>polygonatum sibiricum</i> rhizome/ <i>polygonatum cyrtoneura</i> rhizome/	polygonati rhizoma	黄精	solomonseal rhizome	x		x	x				<i>Polygonatum falcatum</i> rhizome
3	<i>Polygonum bistorta</i> rhizome	bistortae rhizoma	拳参	bistort rhizome	x	x			x			<i>Percaria bistorta</i> rhizome
3	<i>Polygonum cuspidatum</i> rhizome and root	polygones cuspidati rhizoma et radix	虎杖	giant knotweed rhizome	x	x			x			<i>Reynoutria japonica</i> rhizome and root
3	<i>Polygonum orientale</i> fruit	polygoni orientalis fructus	水红子	prince's-feather fruit	x	x			x			
3	<i>Polygonum tinctorium</i> leaf	polygoni tinctorii folium	蓼大青叶	indigoplant leaf	x	x			x			<i>Persicaria tinctorium</i> leaf
3	<i>Polygonum umbellatum</i> sclerotium	polyporus	猪苓	chuling	x	x	x					
3	<i>Pueraria thomsonii</i> root	puerariae thomsonii radix	粉葛	thomson kudzu vine root	x	x			x			
3	<i>Rhodiola crenulata</i> root and rhizome	rhodiolae crenulatae radix et rhizome	红景天	bigflower rhodiola root	x	x				x		
Key CHP Pharmacopoeia of the People's Republic of China HKS Hong Kong Chinese Materia Medica Standards JP Japanese Pharmacopoeia KP Korean Pharmacopoeia EUP European Pharmacopoeia USP United States Pharmacopoeia THP Thai Herbal Pharmacopoeia												

Table 2 (continued)

Occurrences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
3	<i>Rubus chingii</i> fruit	rubi fructus	覆盆子	palmleaf raspberry fruit	x	x		x				
3	<i>Schisandra sphenanthera</i> fruit	schisandrae sphenantherae fructus	南五味子	southern magnolia-vine fruit	x	x			x			
3	<i>Scrophularia ningpoensis</i> root	scrophulariae radix	玄参	figwort root	x	x		x				<i>Scrophularia buergeriana</i> root
3	<i>Smilax glabra</i> rhizome	smilacis glabrae rhizoma	土茯苓	glabrous greenbrier rhizome	x	x	x					
3	<i>Sophora japonica</i> flower and flower bud	sophorae flos	槐花	pagodatree flower	x			x	x			<i>Styphnolobium japonicum</i> flower bud and flower
3	<i>Stephania tetrandra</i> root	stephaniae tetrandae radix	防己	fourstamen stephania root	x	x			x			
3	<i>Swertia pseudochinensis</i> herb	swertiae herba	当药	false Chinese swertia herb	x		x	x				<i>Swertia japonica</i> herb
3	<i>Terminalia chebula</i> fruit/ <i>Terminalia chebula</i> var. <i>tomentella</i> fruit	chebulae fructus	诃子	medicine terminalia fruit	x	x					x	
3	<i>Trichosanthes kirilowii</i> root/ <i>Trichosanthes rosthornii</i> root	trichosanthis radix	天花粉	snakegourd root	x		x	x				<i>Trichosanthes kirilowii</i> var. <i>japonica</i> root/ <i>Trichosanthes bracteata</i> root
Key CHP Pharmacopoeia of the People's Republic of China HKS Hong Kong Chinese Materia Medica Standards JP Japanese Pharmacopoeia KP Korean Pharmacopoeia EUP European Pharmacopoeia USP United States Pharmacopoeia THP Thai Herbal Pharmacopoeia												

Table 2 (continued)

Occurrences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
3	<i>Trichosanthes kirilowii</i> seed/ <i>trichosanthes rosthornii</i> seed	trichosanthis semen	瓜蒌子	snakegourd seed	x	x		x				
3	<i>Trigonella foenum-graecum</i> seed	trigonellae semen	葫芦巴	common fenugreek seed	x	x				x		
3	<i>Tussilago farfara</i> flower bud	farfae flos	款冬花	common coltsfoot flower	x	x		x				
3	<i>Verbena officinalis</i> herb	verbenae herba	马鞭草	European verbena herb	x	x			x			
3	<i>Xanthium sibiricum</i> fruit	xanthii fructus	苍耳子	Siberian cocklebur fruit	x	x		x				<i>Xanthium strumarium</i> fruit
3	<i>Zanthoxylum schinifolium</i> pericarp/ <i>Zanthoxylum bungeanum</i> pericarp	zanthoxyli pericarpium	花椒	pricklyash peel	x			x		x		<i>Zanthoxylum piperitum</i> pericarp
2	<i>Abrus cantoniensis</i> herb	abri herba	鸡骨草	canton love-pea vine	x	x						
2	<i>Acanthopanax senticosus</i> root and rhizome or stem	acanthopanax cosi radix et rhizoma seu caulis	刺五加	manyprickle acanthopanax	x	x						
2	processed <i>Aconitum carmichaelii</i> parent root tuber	aconiti radix cocta	制川乌	prepared common monkshood mother root	x	x						
2	<i>Aconitum carmichaelii</i> parent root tuber	aconiti radix	川乌	common monkshood mother root	x	x						
Key												
CHP Pharmacopoeia of the People's Republic of China												
HKS Hong Kong Chinese Materia Medica Standards												
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EUP European Pharmacopoeia												
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Table 2 (continued)

Occurrences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
2	<i>Aconitum kusnezoffii</i> root tuber	aconiti kusnezoffii radix	草乌	kusnezoff monkshood root	x	x						
2	<i>Acori tatarinowii</i> rhizome	acorus tatarinowii rhizoma	石菖蒲	grassleaf sweetflag rhizome	x	x						
2	<i>Acorus calamus</i> rhizome	acori calami rhizoma	藏菖蒲	tibet sweetflag rhizome	x						x	
2	<i>Agrimonia pilosa</i> herb	agrimoniae herba	仙鹤草	hairyvein agrimonia herb	x	x						
2	<i>Albizia julibrissin</i> inflorescence or flower bud	albisiae flos	合欢花	albizia flower	x	x						
2	<i>Albizia julibrissin</i> stem bark	albisiae cortex	合欢皮	silk tree albizia bark	x	x						
2	<i>Allium sativum</i> bulb	allii sativi bulbus	大蒜	garlic bulb	x						x	
2	<i>Allium tuberosum</i> seed	allii tuberosi semen	韭菜子	tuber onion seed	x	x						
2	<i>Alpina officinarum</i> rhizome	alpinae officinarum rhizoma	高良姜	lesser galangal rhizome	x			x				
2	<i>Alpinia oxyphylla</i> fruit	alpiniae oxyphyllae fructus	益智	sharp leaf galangal fruit	x	x						
2	<i>Amomum compactum</i> fruit/ <i>amomum kravanh</i> fruit	amomi fructus rotundus	豆蔻	round cardamon fruit	x	x						
2	<i>Amomum tsao-ko</i> fruit	tsaoko fructus	草果	caoguo	x	x						

Key

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Table 2 (continued)

Occurrences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
2	<i>Ampelopsis japonica</i> root tuber	ampelopsis radix	白藜	japanese ampelopsis root	x	x						
2	<i>Anemone raddeana</i> rhizome	anemones raddeanae rhizoma	两头尖	radde anemone rhi- zome	x	x						
2	<i>Apocynum venetum</i> leaf	apocyni venetii folium	罗布麻叶	dogbane leaf	x	x						
2	<i>Ardisia crenata</i> root	ardisiae crenatae radix	朱砂根	coral ardisia root	x	x						
2	<i>Arisaema erubescens</i> tuber/ <i>Arisaema heterophyllum</i> tuber/ <i>Arisaema amurense</i> tuber	arisaematis rhizoma	天南星	jackinthe pulp tuber	x			x				
2	<i>Arnebia euchroma</i> root/ <i>Arnebia guttata</i> root	arnebiae radix	紫草	arnebia root	x	x						
2	<i>Artemisia argyi</i> leaf	artemisiae argyi folium	艾叶	argy wormwood leaf	x	x						
2	<i>Asparagus cochinchinensis</i> root tuber	asparagi radix	天冬	cochinchinese aspara- gus root	x		x					
2	<i>Astragalus complanatus</i> seed	astragali complanati semen	沙苑子	flatstem milkvetch seed	x	x						
2	<i>Baphicacanthus cusia</i> rhizome and root	baphicacanthis cusiae rhizoma et radix	南板蓝根	baphicacanthus root	x	x						
2	<i>Bolbostemma paniculatum</i> tuber	bolbostemmatidis rhi- zoma	土贝母	paniculate bol- bostemma	x	x						
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Table 2 (continued)

Occurrences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
2	<i>Brucea javanica</i> fruit	bruceae fructus	鸦胆子	java brucea fruit	x	x						
2	<i>Buddleja officinalis</i> flower bud and inflorescence	buddlejae flos	密蒙花	pale butterflybush flower	x	x						
2	<i>Caesalpinia sappan</i> heart wood	sappan lignum	苏木	sappan wood	x		x					
2	<i>Celosia argentea</i> seed	celosiae semen	青葙子	feather cockscomb seed	x	x						
2	<i>Celosia cristata</i> capitulum	celosiae cristatae flos	鸡冠花	cockscomb flower	x	x						
2	<i>Centipeda minima</i> herb	centipeda herba	鹅不食草	small centipede herb	x	x						
2	<i>Chelidonium majus</i> herb	chelidonii herba	白屈菜	greater celandine herb	x			x				
2	<i>Chrysanthemum indicum</i> capitulum	chrysanthemi indicis flos	野菊花	wild chrysanthemum flower	x	x						
2	<i>Chrysanthemum morifolium</i> capitulum	chrysanthemi flos	菊花	chrysanthemum flower	x		x					<i>Chrysanthemum indicum</i> flower
2	<i>Cirsium japonicum</i> herb	cirsii japonici herba	大蓟	Japanese thistle herb	x	x						
2	<i>Cirsium setosum</i> herb	cirsii herba	小蓟	field thistle herb	x	x						
2	<i>Citrus aurantium</i> fruit	aurantii fructus	枳壳	orange fruit	x	x						
2	<i>Citrus reticulata</i> exocarp	citri exocarpium rubrum	橘红	red tangerine peel	x	x						

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Table 2 (continued)

Occurrences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
2	<i>Clematis chinensis</i> root and rhizome/ <i>clematis manshurica</i> root and rhizome/ <i>clematis hexapetala</i> root and rhizome	clematidis radix et rhizoma	威灵仙	Chinese clematis root	x	x						
2	<i>Cnidium monnieri</i> fruit	cnidii fructus	蛇床子	common cnidium fruit	x	x						
2	<i>Corydalis decumbens</i> tuber	corydalis decumbentis rhizoma	夏天无	decumbent corydalis rhizome	x	x						
2	<i>Corydalis yanhusuo</i> tuber	corydalis rhizoma	延胡索	yanhusuo	x	x						
2	<i>Crataegus pinnatifida</i> var. <i>major</i> fruit/ <i>Crataegus pinnatifida</i> fruit	crataegi fructus	山楂	hawthorn fruit	x		x					
2	<i>Curculigo orchoides</i> rhizome	curculiginis rhizoma	仙茅	common Curculigo rhizome	x	x						
2	<i>Curcuma wenyujin</i> root tuber/ <i>Curcuma longa</i> root tuber/ <i>Curcuma kwangsiensis</i> root tuber/ <i>Curcuma phaeocaulis</i> root tuber	curcumae radix	郁金	turmeric root tuber	x	x						
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Table 2 (continued)

Occurrences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
2	<i>Cuscuta australis</i> seed/ <i>Cuscuta chinensis</i> seed	cuscutae semen	菟丝子	dodder seed	x	x						
2	<i>Cyathula officinalis</i> root	cyathulae radix	川牛膝	medicinal cyathula root	x	x						
2	<i>Cynanchum paniculatum</i> root and rhizome	cynanchi paniculati radix et rhizoma	徐长卿	paniculate swallowwort root	x	x						
2	<i>Daemonorops draco</i> fruit resin	draconis sanguis	血竭	dragon's blood	x	x						
2	<i>Daphne genkwa</i> flower bud	genkwa flos	芫花	lilac daphne flower bud	x	x						
2	<i>Datura metel</i> flower	daturae flos	洋金花	datura flower	x	x						
2	<i>Dendrobium officinale</i> stem	dendrobii officinalis caulis	铁皮石斛	dendrobium stem	x	x						
2	<i>Descurainia sophia</i> seed/ <i>Lepidium apetalum</i> seed	descurainiae semen/lepidii semen	葶苈子	pepperweed seed/canary mustard seed	x	x						
2	<i>Desmodium styracifolium</i> herb	desmodii styracifolii herba	广金钱草	snowbell leaf tickclover herb	x	x						
2	<i>Dimorcarpus longan</i> aril	longan arillus	龙眼肉	longan aril	x		x					
2	<i>Dipsacus asper</i> root	dipsaci radix	续断	himalayan teasel root	x	x						
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Table 2 (continued)

Occur- rences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
2	<i>Dryopteris crassirhi- zoma</i> rhizome and frond bases	<i>dryopteridis crassirhi- zomatis</i> rhizoma	绵马贯众	male fern rhizome	x	x						
2	<i>Eugenia caryophyllata</i> flower bud	<i>caryophylli flos</i>	丁香	clove	x				x			
2	<i>Eupatorium fortunei</i> herb	<i>eupatorii herba</i>	佩兰	fortune eupatorium herb	x	x						
2	<i>Euphorbia kansui</i> root tuber	<i>kansui radix</i>	甘遂	gansui root	x	x						
2	<i>Euphorbia lathyris</i> seed	<i>euphorbiae semen</i>	千金子	caper euphorbia seed	x	x						
2	<i>Fibraurea recisa</i> stem	<i>fibraureae caulis</i>	黄藤	common fibraurea stem	x	x						
2	<i>Fraxinus chinensis</i> branch bark or stem bark/ <i>Fraxinus szabo- ana</i> branch bark or stem bark/ <i>Fraxinus</i> <i>stylosa</i> branch bark or stem bark/ <i>Fraxinus</i> <i>rhynchophylla</i> branch bark or stem bark	<i>fraxini cortex</i>	秦皮	ash bark	x	x						
2	<i>Fritillaria hupehensis</i> bulb	<i>fritillariae hupehensis</i> bulbus	湖北贝母	hubei fritillary bulb	x	x						
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Table 2 (continued)

Occurrences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
2	<i>Fritillaria pallidiflora</i> bulb/ <i>Fritillaria wuljewii</i> bulb	fritillariae pallidiflorae bulb	伊贝母	sinkiang fritillary bulb	x	x						
2	<i>Fritillaria thunbergii</i> bulb	fritillariae thunbergii bulb	浙贝母	thunberg fritillary bulb	x	x						
2	<i>Fritillaria ussuriensis</i> bulb	fritillariae ussuriensis bulb	平贝母	ussuri fritillary bulb	x	x						
2	<i>Ganoderma lucidum</i> sporophore/ <i>Ganoderma sinesis</i> sporophore	ganoderma	灵芝	glossy ganoderma	x					x		
2	<i>Gentiana macrophylla</i> root/ <i>Gentiana straminea</i> root/ <i>Gentiana crassicaulis</i> root/ <i>Gentiana crassicaulis</i> root	gentianae macrophyllae radix	秦艽	largeleaf gentian root	x	x						
2	<i>Gleditsia sinensis</i> fruit	gleditsiae fructus abnormalis	猪牙皂	Chinese honeylocust abnormal fruit	x	x						
2	<i>Hedysarum polybotrys</i> root	hedysari radix	红芪	manyinflorescenced sweetvetch root	x	x						
2	<i>Hyoscyamus niger</i> seed	hyoscyami semen	天仙子	henbane seed	x	x						
2	<i>Hypericum perforatum</i> herb	hyperici perforati herba	贯叶金丝桃	common St. John's wort herb	x				x			
2	<i>Ilex cornuta</i> leaf	ilicis comutae folium	枸骨叶	Chinese holly leaf	x	x						
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Table 2 (continued)

Occurrences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
2	<i>Ilex totunda</i> bark	ilicis rotundae cortex	救必应	ovateleaf holly bark	x	x						
2	<i>Imperata cylindrica</i> var. <i>major</i> rhizome	imperatae rhizoma	白茅根	alang grass rhizome	x			x				<i>Imperata cylindrica</i> var. <i>koenigii</i> rhizome
2	<i>Inula helenium</i> root	inulae radix	土木香	inula root	x	x						
2	<i>Isatis indigotica</i> leaf	isatidis folium	大青叶	dyers woad leaf	x	x						
2	<i>Ligusticum sinense</i> rhizome and root/ <i>Ligusticum jeholense</i> rhizome and root	ligustici rhizome et radix	藁本	Chinese lovage	x	x						
2	<i>Ligustrum lucidum</i> fruit	ligustri lucidi fructus	女贞子	glossy privet fruit	x	x						
2	<i>Lilium lancifolium</i> bulb/ <i>Lilium brownii</i> var. <i>viridulum</i> bulb/ <i>Lilium pumilum</i> bulb/	lilii bulbosus	百合	lily bulb	x		x					<i>Lilium brownii</i> var. <i>colchesteri</i> bulb/ <i>Lilium brownii</i> bulb
2	<i>Liquidambar formosana</i> infructescences	liquidambaris fructus	路路通	beautiful sweetgum fruit	x	x						
2	<i>Liriope muscari</i> root/ <i>Liriope spicata</i> var. <i>prolifera</i> root	liriopes radix	山麦冬	liriope root tuber	x			x				<i>Liriope platyphylla</i> tuber/ <i>ophiopogon japonicus</i> tuber
2	<i>Litsea cubeba</i> fruit	litseae fructus	草澄茄	mountain spicy fruit	x	x						
2	<i>Lonicera japonica</i> stem and branch	loniceræ japonicae caulis	忍冬藤	honeysuckle stem	x	x						
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Table 2 (continued)

Occurrences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
2	<i>Lonicera macranthoides</i> flower/ <i>Lonicera hypoglauca</i> flower/ <i>Lonicera confusa</i> flower/ <i>Lonicera fulvotomentosa</i> flower	loniceræ flos	山银花	honeysuckle flower	x	x						
2	<i>Lophatherum gracile</i> stem and leaf	lophatheri herba	藜竹叶	lophatherum herb	x	x						
2	<i>Lysimachia christinae</i> herb	lysimachiae herba	金钱草	christina loosestrife	x	x						
2	<i>Magnolia officinalis</i> flower bud/ <i>Magnolia officinalis</i> var. <i>biloba</i> flower bud	magnoliae officinalis flos	厚朴花	official magnolia flower	x	x						
2	<i>Mahonia bealei</i> stem/ <i>mahonia fortunei</i> stem	mahoniae caulis	功劳木	Chinese mahonia stem	x	x						
2	<i>Melia toosendan</i> fruit	toosendan fructus	川楝子	Szechwan chinaberry fruit	x	x						
2	<i>Menispermum dauricum</i> rhizome	menispermi rhizoma	北豆根	asiatic moonseed rhizome	x	x						
2	<i>Morinda officinalis</i> root	morindae officinalis radix	巴戟天	morinda root	x	x						
2	<i>Morus alba</i> bark	mori cortex	桑白皮	mulberry root bark	x	x						
2	<i>Morus alba</i> branch	mori ramulus	桑枝	mulberry twig	x	x						
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Table 2 (continued)

Occurrences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
2	<i>Morus alba</i> leaf	mori folium	桑叶	mulberry leaf	x						x	
2	<i>Nelumbo nucifera</i> receptacle	nelumbinis receptaculum	莲房	lotus receptacle	x	x						
2	<i>Notopterygium incisum</i> rhizome and root/ <i>Notopterygium franchetii</i> rhizome and root	notopterygii rhizoma et radix	羌活	incised notopterygium rhizome or root	x	x						
2	<i>Omphalia lapidescens</i> sclerotium	omphalia	雷丸	thunder ball	x	x						
2	<i>Oroxylum indicum</i> seed	oroxyli semen	木蝴蝶	Indian trumpetflower seed	x	x						
2	<i>Panax ginseng</i> leaf	ginseng folium	人参叶	ginseng leaf	x	x						
2	<i>Panax quinquefolium</i> root	panacis quinquefolii radix	西洋参	American ginseng	x	x						
2	<i>Perilla frutescens</i> stem	perillae canlis	紫苏梗	perilla stem	x	x						
2	<i>Periploca sepium</i> root bark	periplocae cortex	香加皮	Chinese silky flue root bark	x	x						
2	<i>Peucedanum decursivum</i> root and rhizome	peucedani decursivi radix	紫花前胡	decurrent hogfennel root	x	x						
2	<i>Platycladus orientalis</i> kernel	platycladi semen	柏子仁	Chinese arborvitae kernel	x	x						
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2	<i>Platycladus orientalis</i> twig and leaf	platycladi lacumen	侧柏叶	Chinese arborvitae twig and leaf	x	x						
2	<i>Polygonum aviculare</i> herb	polygoni avicularis herba	蒺藜	common knotgrass herb	x	x						
2	<i>Polygonum multiflorum</i> stem	polygoni multiflori caulis	首乌藤	tuber fleeceflower stem	x	x						
2	<i>Polygonum perfoliatum</i> herb	polygoni perfoliati herba	杠板归	polygonum herb	x	x						
2	<i>Potentilla chinensis</i> herb	potentillae chinensis herba	委陵菜	Chinese cinquefoil	x	x						
2	<i>Pseudolarix amabilis</i> root bark	pseudolaricis cortex	土荆皮	golden larch bark	x	x						
2	<i>Pseudostellaria heterophylla</i> root	pseudostellariae radix	太子参	heterophyly falsestar- wort root	x	x						
2	<i>Psoralea corylifolia</i> fruit	psoraleae fructus	补骨脂	malaytea scurfpea fruit	x	x						
2	<i>Pulsatilla chinensis</i> root	pulsatillae radix	白头翁	Chinese pulsatilla root	x	x						
2	<i>Pyrrosia sheareri</i> leaf/ <i>pyrrosia lingua</i> leaf/ <i>pyrrosia petiolosa</i> leaf	pyrrosiae folium	石韦	shearer's pyrrosia leaf	x	x						
2	<i>Quisqualis indica</i> fruit	quisqualis fructus	使君子	rangooncreeper fruit	x	x						
2	<i>Rhaponticum uniflorum</i> root	rhapontici radix	漏芦	uniflower swisscen- taury root	x	x						
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2	<i>Rhododendron molle</i> flower	rhododendri mollis flos	闹羊花	yellow azalea flower	x	x						
2	<i>Ricinus communis</i> seed	ricini semen	蓖麻子	castor seed	x	x						
2	<i>Rosa chinensis</i> flower	rosae chinensis flos	月季花	Chinese rose flower	x	x						
2	<i>Rosa laevigata</i> fruit	rosae laevigatae fructus	金樱子	Cherokee rose fruit	x	x						
2	<i>Rubia cordifolia</i> root and rhizome	rubiae radix et rhizoma	茜草	Indian madder root	x	x						
2	<i>Sanguisorba officinalis</i> root/ <i>Sanguisorba officinalis</i> var. <i>longifolia</i> root	sanguisorbae radix	地榆	garden burnet root	x	x						
2	<i>Santalum album</i> heartwood	santali albi lignum	檀香	sandalwood	x						x	<i>Santalum ovata</i> heartwood/ <i>Santalum ovatum</i> heartwood/ <i>Santalum myrtifolium</i> heartwood/ <i>Sirium myrtifolium</i> heartwood
2	<i>Sarcandra glabra</i> herb	sarcandrae herba	肿节风	glabrous sarcandra herb	x	x						
2	<i>Saururus chinensis</i> herb	saururi herba	三白草	Chinese lizardtail herb	x	x						
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Table 2 (continued)

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2	<i>Saussurea involucrata</i> herb	saussureae involucratae herba	天山雪莲	snow lotus herb	x	x						
2	<i>Scutellaria barbata</i> herb	scutellariae barbatae herba	半枝莲	barbated skullcup herb	x	x						
2	<i>Selaginella tamariscina</i> herb/ <i>selaginella pulvinata</i> herb	selaginellae herba	卷柏	spikemoss	x	x						
2	<i>Sesamum indicum</i> seed	sesami semen	黑芝麻	black sesame	x		x					
2	<i>Siegesbeckia orientalis</i> herb/ <i>Siegesbeckia pubescens</i> herb/ <i>Siegesbeckia glabrescens</i> herb	siegesbeckiae herba	豨薟草	siegesbeckia herb	x	x						
2	<i>Smilax china</i> rhizome	smilacis chinae rhizoma	菝葜	chinaroot greenbrier rhizome	x	x						
2	<i>Solidago decurrens</i> herb	solidaginis herba	一枝黄花	common goldenrod herb	x	x						
2	<i>Sophora japonica</i> fruit	sophorae fructus	槐角	japanese pagodatree pod	x	x						
2	<i>Sophora tonkinensis</i> root and rhizome	sophorae tonkinensis radix et rhizoma	山豆根	Vietnamese sophora root	x	x						
2	<i>Spatholobus suberectus</i> stem	spatholobi caulis	鸡血藤	suberect spatholobus stem	x	x						
Key CHP Pharmacopoeia of the People's Republic of China HKS Hong Kong Chinese Materia Medica Standards JP Japanese Pharmacopoeia KP Korean Pharmacopoeia EUP European Pharmacopoeia USP United States Pharmacopoeia THP Thai Herbal Pharmacopoeia												

Table 2 (continued)

Occurrences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
2	<i>Stemona sessifolia</i> root tuber/ <i>Stemona japonica</i> root tuber/ <i>Stemona tuberosa</i> root tuber	stemonae radix	百部	stemona root	x	x						
2	<i>Taxillum chinense</i> branch	taxilli herba	桑寄生	Chinese taxillus herb	x	x						
2	<i>Tinospora sagittata</i> root tuber/ <i>Tinospora capillipes</i> root tuber	tinosporae radix	金果榄	tinospora root	x	x						
2	<i>Trachelospermum jasminoides</i> stem	trachelospermi caulis et folium	络石藤	Chinese starjasmine stem	x	x						
2	<i>Trichosanthes kirilowii</i> pericarp/ <i>Trichosanthes rosthornii</i> pericarp	trichosanthis pericarpium	瓜蒌皮	snakegourd peel	x	x						
2	<i>Vaccaria segetalis</i> seed	vaccariae semen	王不留行	cowherb seed	x	x						
2	<i>Viola yedoensis</i> herb	violae herba	紫花地丁	Tokyo violet herb	x	x						
2	<i>Viscum coloratum</i> stem and branch	visci herba	槲寄生	colored mistletoe herb	x	x						
2	<i>Vitex negundo</i> var. <i>cannabifolia</i> leaf	viticis negundo folium	牡荆叶	hempleaf negundo chastetree leaf	x	x						
Key CHP Pharmacopoeia of the People's Republic of China HKS Hong Kong Chinese Materia Medica Standards JP Japanese Pharmacopoeia KP Korean Pharmacopoeia EUP European Pharmacopoeia USP United States Pharmacopoeia THP Thai Herbal Pharmacopoeia												

Table 2 (continued)

Occurrences	Herbal name	Pharmaceutical name	Chinese name	English name	CHP	HKS	JP	KP	EUP	USP	THP	Note
2	<i>Vitex trifolia</i> var. <i>simplicifolia</i> fruit / <i>Vitex trifolia</i> fruit	viticis fructus	蔓荆子	shrub chastetree fruit	x	x						
2	<i>Zanthoxylum nitidum</i> root	zanthoxyli radix	两面针	shinyleaf pricklyash root	x	x						
Key CHP Pharmacopoeia of the People's Republic of China HKS Hong Kong Chinese Materia Medica Standards JP Japanese Pharmacopoeia KP Korean Pharmacopoeia EUP European Pharmacopoeia USP United States Pharmacopoeia THP Thai Herbal Pharmacopoeia												

5.3 Safety concerns

Table 3 shows a list of single herbal medicines, in order of priority, for which safety concerns, including ADR, have been reported.

Table 3 — Single herbal medicines with safety concerns

Rank	Herbal name	Pharmaceutical name	Chinese name	English name
1	<i>Aconitum kusnezoffii</i> root tuber	aconiti kusnezoffii radix	草乌	kusnezoff monkshood root
2	<i>Aconitum carmichaeli</i> parent root tuber	aconiti radix	川乌	common monkshood mother root
3	<i>Croton tiglium</i> fruit	crotonis fructus	巴豆	croton fruit
4	processed <i>Croton tiglium</i> defatted seed	crotonis semen pulveratum	巴豆霜	defatted croton seed powder
5	<i>Strychnos nux-vomica</i> seed	strychni semen	马钱子	nux vomica
6	<i>Hyoscyamus niger</i> seed	hyoscyami semen	天仙子	henbane seed
7	<i>Rhododendron molle</i> flower	rhododendri mollis flos	闹羊花	yellow azalea flower
8	<i>Aristolochia contorta</i> fruit/ <i>Aristolochia debilis</i> fruit	aristolochiae fructus	马兜铃	Dutchman's pipe fruit
9	<i>Aristolochia debilis</i> herb/ <i>Aristolochia contorta</i> herb	aristolochiae herba	天仙藤	Dutchman's pipe vine
10	<i>Euphorbia ebracteolata</i> root/ <i>Euphorbia fischeriana</i> root	euphorbiae ebracteolatae radix	狼毒	bracteole-lacked euphorbia root
11	<i>Pseudolarix amabilis</i> root bark	pseudolaricis cortex	土荆皮	golden larch bark
12	<i>Physochlaina infundibularis</i> root	physochlainae radix	华山参	funneled physochlaina root
13	<i>Datura metel</i> flower	daturae flos	洋金花	datura flower
14	processed <i>Euphorbia lathyris</i> seed	euphorbiae semen pulveratum	千金子霜	caper euphorbia seed powder
15	<i>Momordica cochinchinensis</i> seed	momordicae semen	木鳖子	cochinchina momordica seed
16	<i>Euphorbia kansui</i> tuber root	kansui radix	甘遂	gansui root
17	<i>Euphorbia lathyris</i> seed	euphorbiae semen	千金子	caper euphorbia seed
18	<i>Daphne genkwa</i> flower bud	genkwa flos	芫花	lilac daphne flower bud
19	<i>Anemone raddeana</i> rhizome	anemones raddeanae rhizoma	两头尖	radde anemone rhizome
20	<i>Euphorbia pekinensis</i> root	euphorbiae pekinensis radix	京大戟	Peking euphorbia root
21	processed <i>Aconitum carmichaelii</i> parent root tuber	aconiti radix cocta	制川乌	prepared common monkshood mother root
22	processed <i>Aconitum kusnezoffii</i> root tuber	aconiti kusnezoffii radix cocta	制草乌	prepared kusnezoff monkshood root
23	<i>Tripterygium wilfordii</i> root	tripterygii wilfordii radix	雷公藤	tripterygii wilfordii root
24	<i>Toxicodendron vernicifluum</i> resin	toxicodendri resina	干漆	dried lacquer
25	<i>Ricinus communis</i> seed	ricini semen	蓖麻子	castor seed
26	<i>Pharbitis nil</i> seed/ <i>pharbitis purpurea</i> seed	pharbitidis semen	牵牛子	pharbitis seed
27	<i>Papaver somniferum</i> pericarp	papaveris pericarpium	罂粟壳	poppy capsule

Table 3 (continued)

Rank	Herbal name	Pharmaceutical name	Chinese name	English name
28	<i>Typhonium giganteum</i> rhizome	typhonii rhizoma	白附子	giant typhonium rhizome
29	<i>Sophora tonkinensis</i> root and rhizome	sophorae tonkinensis radix et rhizoma	山豆根	Vietnamese sophora root
30	<i>Periploca sepium</i> root bark	periplocae cortex	香加皮	Chinese silkvine root bark
31	<i>Melia toosendan</i> stem bark or root bark/ <i>Melia azedarach</i> stem bark or root bark	meliae cortex	苦楝皮	Szechwan chinaberry bark
32	<i>Phytolacca acinosa</i> root/ <i>Phytolacca Americana</i> root	phytolaccae radix	商陆	pokeberry root
33	<i>Arisaema erubescens</i> tuber/ <i>Arisaema heterophyllum</i> tuber/ <i>Arisaema amurense</i> tuber	arisaematis rhizoma	天南星	jackinthepulpit tuber
34	processed <i>Arisaema erubescens</i> tuber/processed <i>Arisaema heterophyllum</i> tuber/processed <i>Arisaema amurense</i> tuber	arisaematis rhizoma praeparatum	制天南星	prepared jackinthepulpit tuber
35	<i>Dichroa febrifuga</i> root	dichroae radix	常山	antifeverile dichroa root
36	<i>Pinellia ternata</i> tuber	pinelliae rhizoma	半夏	pinellia tuber
37	<i>Curculigo orchioidea</i> rhizome	curculiginis rhizoma	仙茅	common curculigo rhizome
38	<i>Ginkgo biloba</i> seed	ginkgo semen	白果	ginkgo seed
39	<i>Xanthium sibiricum</i> fruit	xanthii fructus	苍耳子	Siberian cocklebur fruit
40	<i>Cremastra appendiculata</i> pseudobulb/ <i>Pleione bulbocodioides</i> pseudobulb/ <i>Pleione yunnanensis</i> pseudobulb	cremastrae pseudobulbus/ pleiones pseudobulbus	山慈菇	appendiculate cremastra pseudobulb/common pleione pseudobulb
41	processed <i>Aconitum carmichaeli</i> daughter root	aconiti lateralis radix praeparata	附子	prepared common monkshood daughter root
42	<i>Berberis soulieana</i> root/ <i>Berberis wilsonae</i> root/ <i>Berberis poiretii</i> root/ <i>Berberis verna</i> root	berberidis radix	三颗针	barberry radix
43	<i>Laggera pterodonta</i> herb	laggerae herba	臭灵丹草	wingedtooth laggera leaf
44	<i>Chelidonium majus</i> herb	chelidonii herba	白屈菜	greater celandine herb
45	<i>Psammosilene tunicoides</i> root	psammosilenes radix	金铁锁	tuniclike psammosilene root
46	<i>Aconitum kusnezoffii</i> leaf	aconiti kusnezoffii folium	草乌叶	kusnezoff monkshood leaf
47	<i>Gleditsia sinensis</i> fruit	gleditsiae fructus abnormaliz	猪牙皂	Chinese honeylocust abnormal fruit
48	<i>Gleditsia sinensis</i> fruit	gleditsiae sinensis fructus	大皂角	big gleditsia
49	<i>Brucea javanica</i> fruit	bruceae fructus	鸦胆子	java brucea fruit
50	<i>Knoxia valerianoides</i> root	knoxiae radix	红大戟	knoxia root
51	<i>Pterocephalus hookeri</i> herb	pterocephali herba	翼首草	hooker winghead herb
52	<i>Impatiens balsamina</i> seed	impatiensis semen	急性子	garden balsam seed
53	<i>Picrasma quassioides</i> branch and leaf	picrasmae ramulus et folium	苦木	Indian quassia wood

Table 3 (continued)

Rank	Herbal name	Pharmaceutical name	Chinese name	English name
54	<i>Euodia rutaecarpa</i> fruit/ <i>Euodia rutaecarpa</i> var. <i>officinalis</i> fruit/ <i>Euodia rutaecarpa</i> var. <i>bodinieri</i> fruit	euodiae fructus	吴茱萸	evodia fruit
55	<i>Erycibe obtusifolia</i> stem/ <i>Erycibe schmidtii</i> stem	erycibes caulis	丁公藤	obtuselaf erycibe stem
56	<i>Euphorbia hirta</i> herb	euphorbiae hirtae herba	飞扬草	garden euphorbia herb
57	<i>Artemisia argyi</i> leaf	artemisiae argyi folium	艾叶	argy wormwood leaf
58	<i>Sinapis alba</i> seed/ <i>Brassica juncea</i> seed	sinapis semen	芥子	mustard seed
59	<i>Melia toosendan</i> fruit	toosendan fructus	川楝子	Szechwan chinaberry fruit
60	<i>Osmunda japonica</i> rhizome and frond bases	osmundae rhizoma	紫萁贯众	Japanese osmunda rhizome
61	<i>Dryopteris crassirhizoma</i> rhizome and frond	dryopteridis crassirhizomatis rhizoma	绵马贯众	male fern rhizome
62	<i>Paris polyphylla</i> var. <i>yunnanensis</i> rhizome/ <i>Paris polyphylla</i> var. <i>chinensis</i> rhizome	paridis rhizoma	重楼	Paris rhizome
63	<i>Podophyllum hexandrum</i> fruit	sinopodophyll fructus	小叶莲	common sinopodophyllum fruit
64	<i>Menispermum dauricum</i> rhizome	menispermi rhizoma	北豆根	asiatic moonseed rhizome
65	<i>Illicium difengpi</i> bark	illicii cortex	地枫皮	difengpi bark
66	<i>Daucus carota</i> fruit	carotae fructus	南鹤虱	wild carrot fruit
67	<i>Carpesium abrotanoides</i> fruit	carpesii fructus	鹤虱	common carpesium fruit
68	<i>Prunus armeniaca</i> var. <i>ansu</i> seed/ <i>Prunus sibirica</i> seed/ <i>Prunus mandshurica</i> seed/ <i>Prunus armeniaca</i> seed	armeniacaese semen amarum	苦杏仁	bitter apricot seed
69	<i>Zanthoxylum nitidum</i> root	zanthoxyli radix	两面针	shinyleaf pricklyash root
70	<i>Cnidium monnieri</i> fruit	cnidii fructus	蛇床子	common cnidium fruit
71	<i>Tribulus terrestris</i> fruit	tribuli fructus	蒺藜	puncturevine caltrop fruit
72	<i>Murraya exotica</i> leaf and foliferous branch/ <i>Murraya paniculata</i> leaf and foliferous branch	murrayae folium et cacumen	九里香	murraya jasminorage
73	<i>Daemonorops draco</i> fruit resin	draconis sanguis	血竭	dragon's blood
74	processed <i>Baphicacanthus cusia</i> powder/processed <i>Polygonum tinctorium</i> powder/processed <i>Isatis indigotica</i> powder	indigo naturalis	青黛	natural indigo
75	<i>Asarum heterotropoides</i> var. <i>mandshuricum</i> root and rhizome/ <i>Asarum sieboldii</i> var. <i>seoulense</i> root and rhizome/ <i>Asarum sieboldii</i> root and rhizome	asari radix et rhizoma	细辛	Manchurian wildginger root
76	<i>Cinnamomum cassia</i> bark	cinnamomi cortex	肉桂	cassia bark

Table 3 (continued)

Rank	Herbal name	Pharmaceutical name	Chinese name	English name
77	<i>Aquilaria sinensis</i> resin	aquilariae lignum resinatum	沉香	Chinese eaglewood wood
78	<i>Coptis chinensis</i> rhizome/ <i>Coptis deltoidea</i> rhizome/ <i>Coptis teeta</i> rhizome	coptidis rhizoma	黄连	golden thread
79	<i>Aloe barbadensis</i> juice/ <i>Aloe ferox</i> juice	aloe	芦荟	aloes
80	<i>Commiphora myrrha</i> resin/ <i>Commiphora molmol</i> resin	myrrha	没药	myrrh
81	<i>Boswellia carterii</i> resin/ <i>Boswellia bhawdajiana</i> resin	olibanum	乳香	olibanum
82	<i>Mentha haplocalyx</i> herb	menthae haplocalycis herba	薄荷	peppermint
83	<i>Cassia angustifolia</i> leaf/ <i>Cassia acutifolia</i> leaf	sennae folium	番泻叶	Senna leaf
84	<i>Polygonum multiflorum</i> root tuber	polygoni multiflori radix	何首乌	fleeceflower root
85	<i>Gentiana manshurica</i> root and rhizome/ <i>Gentiana scabra</i> root and rhizome/ <i>Gentiana triflora</i> root and rhizome/ <i>Gentiana rigescens</i> root and rhizome	gentianae radix et rhizoma	龙胆	Chinese gentian
86	<i>Lasiosphaera fenziii</i> sporophore/ <i>Calvatia gigantea</i> sporophore/ <i>Calvatia lilacina</i> sporophore	lasiosphaera/calvatia	马勃	puff-ball
87	<i>Akebia quinata</i> stem/ <i>Akebia trifoliata</i> stem/ <i>Akebia trifoliata</i> . var. <i>australis</i> stem	akebiae caulis	木通	akebia stem
88	<i>Saussurea involucrata</i> herb	saussureae involucratae herba	天山雪莲	snow lotus herb
89	<i>Rhus chinensis</i> gall/ <i>Rhus potaninii</i> gall/ <i>Rhus punjabensis</i> . var. <i>sinica</i> gall	galla chinensis	五倍子	Chinese gall
90	<i>Schisandra chinensis</i> fruit	schisandrae chinensis fructus	五味子	Chinese magnoliavine fruit
91	<i>Panax quinquefolium</i> root	panacis quinquefolii radix	西洋参	American ginseng
92	<i>Stemona sessilifolia</i> root/ <i>Stemona japonica</i> root/ <i>Stemona tuberosa</i> root	stemonae radix	百部	stemona root
93	<i>Cordyceps sinensis</i> stroma	cordyceps	冬虫夏草	Chinese caterpillar fungus
94	<i>Curcuma phaeocaulis</i> rhizome/ <i>Curcuma kwangsiensis</i> rhizome/ <i>Curcuma wenyujin</i> rhizome	curcumae rhizoma	莪术	zedoray rhizome
95	<i>Spirodela polyrrhiza</i> herb	spirodelae herba	浮萍	common ducksmeat herb
96	<i>Sophora flavescens</i> root	sophorae flavescens radix	苦参	sophora root
97	<i>Rhapinticum uniflorum</i> root	rhapontici radix	漏芦	uniflower swisscentaury root

Table 3 (continued)

Rank	Herbal name	Pharmaceutical name	Chinese name	English name
98	<i>Ephedra sinica</i> stem/ <i>Ephedra intermedia</i> stem/ <i>Ephedra equisetina</i> stem	ephedrae herba	麻黄	ephedra
99	<i>Panax ginseng</i> root	ginseng radix et rhizoma	人参	ginseng
100	<i>Panax notoginseng</i> root and rhizome	notoginseng radix et rhizoma	三七	sanchi
101	<i>Punica granatum</i> pericarp	granati pericarpium	石榴皮	pomegranate rind
102	<i>Ampelopsis japonica</i> root tuber	ampelopsis radix	白藜	Japanese ampelopsis root
103	<i>Angelica dahurica</i> root/ <i>Angelica dahurica</i> var. <i>formosana</i> root	angelicae dahuricae radix	白芷	dahurian angelica root
104	<i>Fritillaria cirrhosa</i> bulb/ <i>Fritillaria unibracteata</i> bulb/ <i>Fritillaria przewalskii</i> bulb/ <i>Fritillaria delavayi</i> bulb/ <i>fritillaria taipaiensis</i> bulb/ <i>Fritillaria unibracteata</i> var. <i>wabuensis</i> bulb	fritillariae cirrhosae bulbus	川贝母	tendrilleaf fritillary bulb
105	<i>Areca catechu</i> seed	arecae semen	槟榔	areca seed
106	<i>Psoralea corylifolia</i> fruit	psoraleae fructus	补骨脂	malaytea scurfpea fruit
107	<i>Fritillaria thunbergii</i> bulb	fritillariae thunbergii bulbus	浙贝母	thunberg fritillary bulb
108	<i>Bupleurum chinense</i> root/ <i>Bupleurum scorzonrifolium</i> root	bupleuri radix	柴胡	Chinese thorowrax root
109	<i>Leonurus japonicus</i> fruit	leonuri fructus	茺蔚子	motherwort fruit
110	<i>Ligusticum chuanxiong</i> rhizome	chuanxiong rhizoma	川芎	Szechwan lovage rhizome
111	<i>Eucommia ulmoides</i> bark	eucommiae cortex	杜仲	eucommia bark
112	<i>Saposhnikovia divaricata</i> root	saposhnikoviae radix	防风	divaricate saposhnikovia root
113	<i>Glycyrrhiza uralensis</i> root and rhizome/ <i>Glycyrrhiza inflata</i> root and rhizome/ <i>Glycyrrhiza glabra</i> root and rhizome	glycyrrhizae radix et rhizoma	甘草	licorice root
114	<i>Ligusticum sinense</i> rhizome and root/ <i>Ligusticum jeholense</i> rhizome and root	ligustici rhizoma et radix	藁本	Chinese lovage
115	<i>Cinnamomum cassia</i> branch	cinnamomi ramulus	桂枝	cassia twig
116	<i>Carthamus tinctorius</i> flower	carthami flos	红花	safflower
117	<i>Scutellaria baicalensis</i> root	scutellariae radix	黄芩	baical skullcap root
118	<i>Schizonepeta tenuifolia</i> herb	schizonepetae herba	荆芥	fineleaf schizonepeta herb
119	<i>Platycodon grandiflorum</i> root	platycodonis radix	桔梗	platycodon root
120	<i>Tussilago farfara</i> flower bud	farfae flos	款冬花	common coltsfoot flower
121	<i>Liquidambar formosana</i> infructescences	liquidambaris fructus	路路通	beautiful sweetgum fruit
122	<i>Eriobotrya japonica</i> leaf	eriobotryae folium	枇杷叶	loquat leaf
123	<i>Typha angustifolia</i> pollen/ <i>Typha orientalis</i> pollen	typhae pollen	蒲黄	cattail pollen

Table 3 (continued)

Rank	Herbal name	Pharmaceutical name	Chinese name	English name
124	<i>Notopterygium incisum</i> rhizome and root/ <i>Notopterygium franchetii</i> rhizome and root	notopterygii rhizoma et radix	羌活	incised notopterygium rhizome or root
125	<i>Polygonum bistorta</i> rhizome	bistortae rhizoma	拳参	bistort rhizome
126	<i>Cistanche deserticola</i> fleshy stem / <i>Cistanche tubulosa</i> fleshy stem	cistanches herba	肉苁蓉	desertliving cistanche
127	<i>Sparganium stoloniferum</i> tuber rhizome	sparganii rhizoma	三棱	common burreed tuber
128	<i>Belamcanda chinensis</i> rhizome	belamcandae rhizoma	射干	black berry lily rhizome
129	<i>Cimicifuga heracleifolia</i> rhizome/ <i>Cimicifuga dahurica</i> rhizome/ <i>Cimicifuga foetida</i> rhizome	cimicifugae rhizoma	升麻	large trifolious bugbane rhizome
130	<i>Acorus tatarinowii</i> rhizome	acori tatarinowii rhizoma	石菖蒲	grassleaf sweetflag rhizome
131	<i>Prunus persica</i> seed/ <i>Prunus davidiana</i> seed	persicae semen	桃仁	peach seed
132	<i>Gastrodia elata</i> tuber	gastrodiae rhizoma	天麻	tall gastrodia tuber
133	<i>Descurainia sophia</i> seed/ <i>Lepidium apetalum</i> seed	descurainiae semen/lepidii semen	葶苈子	pepperweed seed/tansymustard seed
134	<i>Clematis chinensis</i> root and rhizome/ <i>Clematis hexapetala</i> root and rhizome/ <i>Clematis manshurica</i> root and rhizome	clematidis radix et rhizoma	威灵仙	Chinese clematis root
135	<i>Magnolia biondii</i> flower bud/ <i>Magnolia denudata</i> flower bud/ <i>Magnolia sprengeri</i> flower bud	magnoliae flos	辛夷	biond magnolia flower
136	<i>Corydalis yanhusuo</i> tuber	corydalis rhizoma	延胡索	yanhusuo
137	<i>Alpinia oxyphylla</i> fruit	alpiniae oxyphyllae fructus	益智	sharp leaf glangal fruit
138	<i>Epimedium brevicornum</i> leaf/ <i>Epimedium sagittatum</i> leaf/ <i>Epimedium pubescens</i> leaf/ <i>Epimedium koreanum</i> leaf	epimedii folium	淫羊藿	epimedium leaf
139	<i>Curcuma wenyujin</i> tuber/ <i>Curcuma longa</i> tuber/ <i>Curcuma kwangsiensis</i> tuber/ <i>Curcuma kwangsiensis</i> tuber	curcumae radix	郁金	turmeric root tuber
140	<i>Polygala tenuifolia</i> root/ <i>Polygala sibirica</i> root	polygalae radix	远志	thin leaf milkwort root
141	<i>Gardenia jasminoides</i> fruit	gardeniae fructus	梔子	cape jasmine fruit
142	<i>Perilla frutescens</i> stem	perillae caulis	紫苏梗	perilla stem
143	<i>Perilla frutescens</i> leaf	perillae folium	紫苏叶	perilla leaf
144	<i>Atractylodes macrocephala</i> rhizome	atractylodis macrocephalae rhizoma	白术	large head atractylodes rhizome

Table 3 (continued)

Rank	Herbal name	Pharmaceutical name	Chinese name	English name
145	<i>Platycladus orientalis</i> twig and leaf	platycladi cacumen	侧柏叶	Chinese arborvitae twig and leaf
146	<i>Paeonia lactiflora</i> root/ <i>Paeonia veitchii</i> root	paeoniae radix rubra	赤芍	red peony root
147	<i>Angelica sinensis</i> root	angelicae sinensis radix	当归	Chinese angelica
148	<i>Sargassum pallidum</i> alga/ <i>Sargassum fusiforme</i> alga	sargassum	海藻	seaweed
149	<i>Laminaria japonica</i> thalline/ <i>Ecklonia kurome</i> thalline	laminariae thallus/ eckloniae thallus	昆布	kelp/tangle
150	<i>Apocynum venetum</i> leaf	apocyni veneti folium	罗布麻叶	dogbane leaf
151	<i>Arctium lappa</i> fruit	arctii fructus	牛蒡子	great burdock achene
152	<i>Sinomenium acutum</i> stem/ <i>Sinomenium acutum</i> var. <i>cinereum</i> stem	sinomenii caulis	青风藤	orientvine stem
153	<i>Crataegus pinnatifida</i> var. <i>major</i> fruit/ <i>Crataegus pinnatifida</i> fruit	crataegi fructus	山楂	hawthorn fruit
154	<i>Quisqualis indica</i> fruit	quisqualis fructus	使君子	rangooncreeper fruit
155	<i>Cuscuta australis</i> seed/ <i>Cuscuta chinensis</i> seed	cuscutae semen	菟丝子	dodder seed
156	<i>Anemarrhena asphodeloides</i> rhizome	anemarrhenae rhizoma	知母	common anemarrhena rhizome
157	<i>Dolichos lablab</i> seed	lablab semen album	白扁豆	white hyacinth bean
158	<i>Bletilla striata</i> tuber	bletillae rhizoma	白及	common bletilla tuber
159	<i>Paeonia lactiflora</i> root	paeoniae radix alba	白芍	white peony root
160	<i>Pulsatilla chinensis</i> root	pulsatillae radix	白头翁	Chinese pulsatilla root
161	<i>Isatis indigotica</i> root	isatidis radix	板蓝根	isatidis root
162	<i>Rheum palmatum</i> root and rhizome/ <i>Rheum tanguticum</i> root and rhizome/ <i>Rheum officinale</i> root and rhizome	rhei radix et rhizoma	大黄	rhubarb
163	<i>Ziziphus jujuba</i> fruit	jujubae fructus	大枣	Chinese date
164	<i>Salvia miltiorrhiza</i> root and rhizome	salviae miltiorrhizae radix and rhizoma	丹参	danshen root
165	<i>Sanguisorba officinalis</i> root/ <i>Sanguisorba officinalis</i> var. <i>longifolia</i> root	sanguisorbae radix	地榆	garden burnet root
166	<i>Pueraria lobata</i> root	puerariae lobatae radix	葛根	kudzu vine root
167	<i>Trichosanthes kirilowii</i> fruit/ <i>Trichosanthes rosthornii</i> fruit	trichosanthis fructus	瓜蒌	snakegourd fruit
168	processed <i>Rehmannia glutinosa</i> root	rehmanniae radix praeparata	熟地黄	prepared rehmannia root
169	<i>Ziziphus jujuba</i> var. <i>spinosa</i> seed	ziziphi spinosae semen	酸枣仁	spine date seed
170	<i>Trichosanthes kirilowii</i> root/ <i>Trichosanthes rosthornii</i> root	trichosanthis radix	天花粉	snakegourd root
171	<i>Semiaquilegia adoxoides</i> root tuber	semiaquilegiae radix	天葵子	muskroot-like semiaquilegia root
172	<i>Scrophularia ningpoensis</i> root	scrophulariae radix	玄参	figwort root

Table 3 (continued)

Rank	Herbal name	Pharmaceutical name	Chinese name	English name
173	<i>Senecio scandens</i> herb	senecionis scandentis herba	千里光	climbing groundsel herb
174	<i>Astragalus membranaceus</i> var. <i>mongholicus</i> root/ <i>Astragalus membranaceus</i> root	astragali radix	黄芪	milkvetch root
175	<i>Saururus chinensis</i> herb	saururi herba	三白草	Chinese lizardtail herb
176	<i>Dioscorea opposita</i> rhizome	dioscoreae rhizoma	山药	common yam rhizome
177	<i>Leonurus japonicus</i> herb	leonuri herba	益母草	motherwort herb
178	<i>Lysimachia christinae</i> herb	lysimachiae herba	金钱草	christina loosestrife

5.4 Single herbal medicine standards published or under development

As of May 2019 there are 19 kinds of single herbal medicine for which an international standard has been published or is in development (see [Table 4](#)).

Table 4 — Current projects and published standards for single herbal medicines

ISO document	Title
ISO 17217-1	Traditional Chinese medicine — <i>Ginseng</i> seeds and seedlings — Part 1: <i>Panax ginseng</i> CA Meyer
ISO 19824	Traditional Chinese medicine — <i>Schisandra chinensis</i> (Turcz.) Baill. seeds and seedlings
ISO 20311	Traditional Chinese medicine — <i>Salvia miltiorrhiza</i> seeds and seedlings
ISO 20408	Traditional Chinese medicine — <i>Panax notoginseng</i> seeds and seedlings
ISO 20409	Traditional Chinese medicine — <i>Panax notoginseng</i> root and rhizome
ISO 20759	Traditional Chinese medicine — <i>Artemisia argyi</i> leaf
ISO 21314	Traditional Chinese medicine — <i>Salvia miltiorrhiza</i> root and rhizome
ISO 21315	Traditional Chinese medicine — <i>Ganoderma lucidum</i> fruiting body
ISO 21316	Traditional Chinese medicine — <i>Isatis indigotica</i> root
ISO 21317	Traditional Chinese medicine — <i>Lonicera japonica</i> flower
ISO 21370	Traditional Chinese medicine — <i>Dendrobium officinale</i> stem
ISO 22212	Traditional Chinese medicine — <i>Gastrodia</i> tuber
ISO 22584	Traditional Chinese medicine — <i>Angelica sinensis</i> root
ISO 22988	Traditional Chinese medicine — <i>Astragalus mongholicus</i> root
ISO 23193	Traditional Chinese medicine — <i>Lycium barbarum</i> and <i>Lycium chinense</i> fruit

5.5 Endangered species

10 kinds of single herbal medicines are listed as endangered species in CITES, Appendix II, as shown in [Table 5](#).

Table 5 — Endangered species of single herbal medicines in CITES

Herbal name	Pharmaceutical name	Chinese name	English name	Appendix
<i>Aquilaria sinensis</i> resin	aquilariae lignum resinatum	沉香	Chinese eagle-wood wood	II
<i>Bletilla striata</i> tuber	bletillae rhizoma	白及	common bletilla tuber	II
<i>Cibotium barometz</i> rhizome	cibotii rhizoma	狗脊	cibot rhizome	II

Table 5 (continued)

Herbal name	Pharmaceutical name	Chinese name	English name	Appendix
<i>Cistanche deserticola</i> fleshy stem	cistanches herba	肉苁蓉	desertliving cistanche	II
<i>Dendrobium nobile</i> stem/ <i>Dendrobium fimbriatum</i> stem	dendrobii caulis	石斛	dendrobium	II
<i>Dendrobium officinale</i> stem	dendrobii officinalis caulis	铁皮石斛	dendrobium stem	II
<i>Gastrodia elata</i> tuber	gastrodiae rhizoma	天麻	tall gastrodia tuber	II
<i>Panax ginseng</i> root and rhizome	ginseng radix et rhizoma	人参	ginseng	II
<i>Panax quinquefolium</i> root	panacis quinquefolii radix	西洋参	American ginseng	II
<i>Pleione bulbocodioides</i> pseudobulb/ <i>Pleione yunnanensis</i> pseudobulb	pleiones pseudobulbus	山慈菇	common pleione pseudobulb	II

6 Data processing

6.1 Expert consultation

The weight coefficient of three criteria – international trade, existing standards and safety issues – were established after two rounds of surveys by international experts working in the fields of traditional Chinese medicine, phytomedicine, natural medicines and standardization (see [Table 6](#)).

Table 6 — The weight coefficient of criteria based on expert consultation

Criterion	Descriptives					Coefficient of variation
	Number of participants	Minimum score %	Maximum score %	Average score %	Standard deviation	CV %
International trade	43	25	35	31,35	3,323	10,60
Existing standards	43	25	35	29,47	3,507	11,90
Safety issues	43	30	45	39,19	3,216	8,21
Valid number	43			100,00		

6.2 Data statistics

The information in [Table 1](#), [Table 2](#) and [Table 3](#) is analysed by the rank-sum ratio (RSR) method according to a statistical theory and thus produces [Table 7](#) and [Table A.1](#).

7 Single herbal medicines in order of priority

[Table 7](#) shows the top 100 single herbal medicines, ranked by synthesis score via the Statistic Package for Social Science (SPSS), in order of their priority in the development of international standards. The remaining single herbal medicines outside the top 100 are listed in informative [Annex A](#).

Table 7 — Top 100 single herbal medicines by priority

Integrated priority rank	Herbal name	Pharmaceutical name	Chinese name	English name
1	<i>Panax ginseng</i> root	ginseng radix et rhizoma	人参	ginseng
2	<i>Ephedra sinica</i> stem/ <i>Ephedra intermedia</i> stem/ <i>Ephedra equisetina</i> stem	ephedrae herba	麻黄	ephedra
3	<i>Pinellia ternata</i> tuber	pinelliae rhizoma	半夏	pinellia tuber
4	<i>Coptis chinensis</i> rhizome/ <i>Coptis deltoidea</i> rhizome/ <i>Coptis teeta</i> rhizome	coptidis rhizoma	黄连	golden thread
5	<i>Eucommia ulmoides</i> bark	eucommiae cortex	杜仲	eucommia bark
6	<i>Panax notoginseng</i> root and rhizome	notoginseng radix et rhizoma	三七	sanchi
7	<i>Glycyrrhiza uralensis</i> root and rhizome/ <i>Glycyrrhiza inflata</i> root and rhizome/ <i>Glycyrrhiza glabra</i> root and rhizome	glycyrrhizae radix et rhizoma	甘草	licorice root
8	<i>Scutellaria baicalensis</i> root	scutellariae radix	黄芩	baical skullcap root
9	<i>Atractylodes macrocephala</i> rhizome	atractylodis macrocephalae rhizoma	白术	largehead atractylodes rhizome
10	<i>Rheum palmatum</i> root and rhizome/ <i>Rheum tanguticum</i> root and rhizome/ <i>Rheum officinale</i> root and rhizome	rhei radix et rhizoma	大黄	rhurbarb
11	<i>Astragalus membranaceus</i> var. <i>mongholicus</i> root/ <i>Astragalus membranaceus</i> root	astragli radix	黄芪	milkvetch root
12	<i>Angelica sinensis</i> root	angelicae sinensis radix	当归	Chinese angelica
13	<i>Strychnos nux-vomica</i> seed	strychni semen	马钱子	nux vomica
14	<i>Ligusticum chuanxiong</i> rhizome	chuanxiong rhizoma	川芎	Szechwan lovage rhizome
15	<i>Fritillaria cirrhosa</i> bulb/ <i>Fritillaria unibracteata</i> bulb/ <i>Fritillaria przewalskii</i> bulb/ <i>Fritillaria delavayi</i> bulb/ <i>Fritillaria taipaiensis</i> bulb/ <i>Fritillaria unibracteata</i> var. <i>wabuensis</i> bulb	fritillariae cirrhosae bulb	川贝母	tendrilleaf fritillary bulb
16	processed <i>Aconitum carmichaeli</i> daughter root	aconiti lateralis radix praeparata	附子	prepared common monkshood daughter root
17	<i>Gastrodia elata</i> tuber	gastrodiae rhizoma	天麻	tall gastrodia tuber
18	<i>Polygonum multiflorum</i> root tuber	polygoni multiflori radix	何首乌	fleeceflower root
19	<i>Cinnamomum cassia</i> bark	cinnamomi cortex	肉桂	cassia bark
20	<i>Schisandra chinensis</i> fruit	schisandrae chinensis fructus	五味子	Chinese magnolia-vine fruit

Table 7 (continued)

Integrated priority rank	Herbal name	Pharmaceutical name	Chinese name	English name
21	<i>Euodia rutaecarpa</i> fruit/ <i>Euodia rutaecarpa</i> var. <i>officinalis</i> fruit/ <i>Euodia rutaecarpa</i> var. <i>bodinieri</i> fruit	euodiae fructus	吴茱萸	medicinal euodia fruit
22	<i>Paeonia lactiflora</i> root	paeoniae radix alba	白芍	white peony root
23	<i>Cassia angustifolia</i> leaf/ <i>Cassia acutifolia</i> leaf	sennae folium	番泻叶	senna leaf
24	<i>Tribulus terrestris</i> fruit	tribuli fructus	蒺藜	puncturevine caltrop fruit
25	<i>Pharbitis nil</i> seed/ <i>Pharbitis pupurea</i> seed	pharbitidis semen	牵牛子	pharbitis seed
26	<i>Angelica dahurica</i> root/ <i>Angelica dahurica</i> var. <i>formosana</i> root	angelicae dahuricae radix	白芷	dahurian angelica root
27	<i>Panax quinquefolium</i> root	panacis quinquefolii radix	西洋参	American ginseng
28	<i>Areca catechu</i> seed	arecae semen	槟榔	areca seed
29	<i>Xanthium sibiricum</i> fruit	xanthii fructus	苍耳子	Siberian cocklebur fruit
30	<i>Akebia quinata</i> stem/ <i>Akebia trifoliata</i> stem/ <i>Akebia trifoliata</i> var. <i>australis</i> stem	akebiae caulis	木通	akebia stem
31	<i>Carthamus tinctorius</i> flower	carthami flos	红花	safflower
32	<i>Lycium barbarum</i> fruit	lycii fructus	枸杞子	barbary wolfberry fruit
33	<i>Rehmannia glutinosa</i> root	rehmanniae radix	地黄	rehmannia root
34	<i>Codonopsis pilosula</i> root/ <i>Codonopsis pilosula</i> var. <i>modesta</i> root/ <i>Codonopsis tangshen</i> root	codonopsis radix	党参	tangshen
35	<i>Curcuma phaeocaulis</i> rhizome/ <i>Curcuma kwangsiensis</i> rhizome/ <i>Curcuma wenyujin</i> rhizome	curcumae rhizoma	莪术	zedoray rhizome
36	<i>Sophora flavescens</i> root	sophorae flavescentis radix	苦参	lightyellow sophora root
37	<i>Curcuma longa</i> rhizome	curcumae longae rhizoma	姜黄	turmeric
38	<i>Bupleurum chinense</i> root/ <i>Bupleurum scorzonrifolium</i> root	bupleuri radix	柴胡	Chinese thorowrax root
39	<i>Saposhnikovia divaricata</i> root	saposhnikoviae radix	防风	divaricate saposhnikovia root
40	<i>Platycodon grandiflorum</i> root	platycodonis radix	桔梗	platycodon root
41	<i>Poria cocos</i> sclerotium	poria	茯苓	Indian bread
42	<i>Aloe barbadensis</i> juice/ <i>Aloe ferox</i> juice	aloe	芦荟	aloes
43	<i>Commiphora molmol</i> resin/ <i>Commiphora myrrha</i> resin	myrrha	没药	myrrh

Table 7 (continued)

Integrated priority rank	Herbal name	Pharmaceutical name	Chinese name	English name
44	<i>Salvia miltiorrhiza</i> root and rhizome	salviae miltiorrhizae radix et rhizoma	丹参	danshen root
45	<i>Mentha haplocalyx</i> herb	menthae haplocalycis herb	薄荷	peppermint
46	<i>Cimicifuga heracleifolia</i> rhizome/ <i>Cimicifuga dahurica</i> rhizome/ <i>Cimicifuga foetida</i> rhizome	cimicifugae rhizoma	升麻	largetrifolious bugbane rhizome
47	<i>Anemarrhena asphodeloides</i> rhizome	anemarrhenae rhizoma	知母	common anemarrhena rhizome
48	<i>Prunus persica</i> seed/ <i>Prunus davidiana</i> seed	persicae semen	桃仁	peach seed
49	<i>Gentiana manshurica</i> root and rhizome/ <i>Gentiana scabra</i> root and rhizome/ <i>Gentiana triflora</i> root and rhizome/ <i>Gentiana rigescens</i> root and rhizome	gentianae radix et rhizoma	龙胆	Chinese gentian
50	<i>Aconitum kusnezoffii</i> root tuber	aconiti kusnezoffii radix	草乌	kusnezoff monkshood root
51	<i>Glehnia littoralis</i> root	glehniae radix	北沙参	coastal glehnia root
52	<i>Aconitum carmichaeli</i> parent root tuber	aconiti radix	川乌	common monkshood mother root
53	<i>Crocus sativus</i> stigma	crocii stigma	西红花	saffron
54	<i>Hyoscyamus niger</i> seed	hyoscyami semen	天仙子	henbane seed
55	<i>Epimedium brevicornum</i> leaf/ <i>Epimedium sagittatum</i> leaf/ <i>Epimedium pubescens</i> leaf/ <i>Epimedium koreanum</i> leaf	epimedii folium	淫羊藿	epimedium leaf
56	<i>Rhododendron molle</i> flower	rhododendri mollis flos	闹羊花	yellow azalea flower
57	<i>Pueraria lobata</i> root	puerariae lobatae radix	葛根	kudzu vine root
58	<i>Polygala tenuifolia</i> root/ <i>Polygala sibirica</i> root	polygalae radix	远志	thinleaf milkwort root
59	<i>Gardenia jasminoides</i> fruit	gardeniae fructus	梔子	cape jasmine fruit
60	<i>Pseudolarix amabilis</i> root bark	pseudolaricis cortex	土荆皮	golden larch bark
61	<i>Datura metel</i> flower	daturae flos	洋金花	datura flower
62	<i>Euphorbia kansui</i> tuber root	kansui radix	甘遂	gansui root
63	<i>Euphorbia lathyris</i> seed	euphorbiae semen	千金子	caper euphorbia seed
64	<i>Daphne genkwa</i> flower bud	genkwa flos	芫花	lilac daphne flower bud
65	<i>Dioscorea opposita</i> rhizome	dioscoreae rhizoma	山药	common yam rhizome
66	<i>Anemone raddeana</i> rhizome	anemones raddeanae rhizoma	两头尖	radde anemone rhizome

Table 7 (continued)

Integrated priority rank	Herbal name	Pharmaceutical name	Chinese name	English name
67	<i>Sinomenium acutum</i> stem/ <i>Sinomenium acutum</i> var. <i>cinereum</i> stem	sinomenii caulis	青风藤	orientvine stem
68	processed <i>Aconitum car-michaelii</i> parent root tuber	aconiti radix cocta	制川乌	prepared common monkshood mother root
69	<i>Ricinus communis</i> seed	ricini semen	蓖麻子	castor seed
70	<i>Sophora tonkinensis</i> root and rhizome	sophorae tonkinensis radix et rhizoma	山豆根	Vietnamese sophora root
71	<i>Cordyceps sinensis</i> stroma	cordyceps	冬虫夏草	Chinese caterpillar fungus
72	<i>Periploca sepium</i> root bark	periplocae cortex	香加皮	Chinese silkvine root bark
73	<i>Cinnamomum cassia</i> branch	cinnamomi ramulus	桂枝	cassia twig
74	<i>Ziziphus jujube</i> fruit	jujubae fructus	大枣	Chinese date
75	<i>Arisaema erubescens</i> tuber/ <i>Arisaema heterophyllum</i> tuber/ <i>Arisaema amurense</i> tuber	arisaematis rhizoma	天南星	jackinthe pulp tuber
76	<i>Tussilago farfara</i> flower bud	farfae flos	款冬花	common coltsfoot flower
77	<i>Curculigo orchioideis</i> rhizome	curculiginis rhizoma	仙茅	common curculigo rhizome
78	<i>Eriobotrya japonica</i> leaf	eribotryae folium	枇杷叶	loquat leaf
79	<i>Polygonum bistorta</i> rhizome	bistortae rhizoma	拳参	bistort rhizome
80	<i>Cistanche deserticola</i> fleshy stem/ <i>Cistanche tubulosa</i> fleshy stem	cistanches herba	肉苁蓉	desertliving cistanche
81	<i>Belamcanda chinensis</i> rhizome	belamcandae rhizoma	射干	blackberry lily rhizome
82	<i>Chelidonium majus</i> herb	chelidonii herba	白屈菜	greater celandine herb
83	<i>Leonurus japonicus</i> herb	leonuri herba	益母草	motherwort herb
84	<i>Sophora japonica</i> flower and flower bud	sophorae flos	槐花	pagodatree flower
85	<i>Gleditsia sinensis</i> fruit	gleditsiae fructus abnormalis	猪牙皂	Chinese honeylocust abnormal fruit
86	<i>Brucea javanica</i> fruit	bruceae fructus	鸦胆子	java brucea fruit
87	<i>Magnolia biondii</i> flower bud/ <i>Magnolia denudata</i> flower bud / <i>Magnolia sprengeri</i> flower bud	magnoliae flos	辛夷	biond magnolia flower
88	<i>Artemisia argyi</i> leaf	artemisiae argyi folium	艾叶	argy mormwoot leaf
89	<i>Melia toosendan</i> fruit	toosendan fructus	川楝子	Szechwan chinaberry fruit
90	<i>Dryopteris crassirhizoma</i> rhizome and frond bases	dryopteridis crassirhizomatis rhizoma	绵马贯众	male fern rhizome

Table 7 (continued)

Integrated priority rank	Herbal name	Pharmaceutical name	Chinese name	English name
91	<i>Paeonia lactiflora</i> root/ <i>Paeonia veitchii</i> root	paeoniae radix rubra	赤芍	red peony root
92	<i>Menispermum dauricum</i> rhizome	menispermii rhizoma	北豆根	asiatic moonseed rhizome
93	<i>Actium lappa</i> fruit	arctii fructus	牛蒡子	great burdock achene
94	<i>Zanthoxylum nitidum</i> root	zanthoxyli radix	两面针	shiny leaf pricklyash root
95	<i>Cnidium monnieri</i> fruit	cnidii fructus	蛇床子	common cnidium fruit
96	<i>Daemonorops draco</i> fruit resin	draconis sanguis	血竭	dragon's blood
97	<i>Isatis indigotica</i> root	isatidis radix	板蓝根	isatis root
98	<i>Croton tiglium</i> fruit	crotonis fructus	巴豆	croton fruit
99	processed <i>Croton tiglium</i> defatted seed	crotonis semen pul- veratum	巴豆霜	defatted croton seed powder
100	<i>Trichosanthes kirilowii</i> root/ <i>Trichosanthes rosthornii</i> root	trichosanthis radix	天花粉	snakegourd root

Annex A (informative)

Priority list of single herbal medicines ranked from 101 to 366

Table A.1 shows a list of single herbal medicines ranked from 101 to 366, in order of their priority in the development of international standards. When different single herbal medicines have the same ranked score this means they have the same priority.

Table A.1 — Priority list of single herbal medicines ranked from 101 to 366

Integrated priority rank	Herbal name	Pharmaceutical name	Chinese name	English name
101	<i>Scrophularia ningpoensis</i> root	scrophulariae radix	玄参	figwort root
102	<i>Saussurea involucrata</i> herb	saussureae involucratae herba	天山雪莲	snow lotus herb
103	<i>Aristolochia contorta</i> fruit/ <i>Aristolochia debilis</i> fruit	aristolochiae fructus	马兜铃	Dutchman's pipe fruit
104	<i>Aristolochia debilis</i> herb/ <i>Aristolochia contorta</i> herb	aristolochiae herba	天仙藤	Dutchman's pipe vine
105	<i>Euphorbia ebracteolata</i> root/ <i>Euphorbia fischeriana</i> root	euphorbiae ebracteolatae radix	狼毒	bracteole-lacked euphorbia root
106	<i>Stemona sessifolia</i> root tuber/ <i>Stemona japonica</i> root tuber/ <i>Stemona tuberosa</i> root tuber	stemonae radix	百部	stemona root
107	<i>Physochlaina infundibularis</i> root	physochlainae radix	华山参	funneled physochlaina root
108	processed <i>Euphorbia lathyris</i> seed	euphorbiae semen pulveratum	千金子霜	caper euphorbia seed powder
109	<i>Momordica cochinchinensis</i> seed	momordicae semen	木鳖子	cochinchina momordica seed
110	<i>Rhaponticum uniflorum</i> root	rhapontici radix	漏芦	uniflower swiss-centaury root
111	<i>Euphorbia pekinensis</i> root	euphorbiae pekinensis radix	京大戟	Peking euphorbia root
112	<i>Ampelopsis japonica</i> root tuber	ampelopsis radix	白藜	Japanese ampelopsis root
113	processed <i>Aconitum kusnezoffii</i> root tuber	aconiti kusnezoffii radix cocta	制草乌	prepared kusnezoff monkshood root
114	<i>Tripterygium wilfordii</i> root	tripterygii wilfordii radix	雷公藤	tripterygii wilfordii root
115,5	<i>Atractylodes lancea</i> rhizome/ <i>Atractylodes chinense</i> rhizome	atractylodis rhizoma	苍术	atractylodes rhizome
115,5	<i>Zingiber officinale</i> rhizome	zingiberis rhizoma	干姜	zingiber (dried ginger)