

1
00:00:03,380 --> 00:00:05,940
Hello and welcome
to Mayo Clinic Talks,

2
00:00:05,940 --> 00:00:07,740
The Opioid Edition.

3
00:00:07,740 --> 00:00:09,120
I'm Tracy McCray and with me

4
00:00:09,120 --> 00:00:10,800
today is Dr. Holly Geyer.

5
00:00:10,800 --> 00:00:12,660
Dr. Geyer, is a
hospital internal

6
00:00:12,660 --> 00:00:14,610
medicine physician
and member of

7
00:00:14,610 --> 00:00:15,780
the American Society of

8
00:00:15,780 --> 00:00:17,130
Addiction Medicine with

9
00:00:17,130 --> 00:00:18,510
substantial experience

10
00:00:18,510 --> 00:00:20,340
working in the
addiction field.

11
00:00:20,340 --> 00:00:21,570
She currently serves as a

12
00:00:21,570 --> 00:00:22,800
practice leader
working with

13

00:00:22,800 --> 00:00:24,360
the Opioid
Stewardship Program

14
00:00:24,360 --> 00:00:26,125
at Mayo Clinic in Arizona.

15
00:00:26,125 --> 00:00:28,640
In past episodes, we've
been looking at how

16
00:00:28,640 --> 00:00:29,840
physicians identify

17
00:00:29,840 --> 00:00:31,655
the right patient
and the right drug,

18
00:00:31,655 --> 00:00:34,160
the right dose, the
right duration, when they

19
00:00:34,160 --> 00:00:36,710
are prescribing opioids
for pain management.

20
00:00:36,710 --> 00:00:38,570
Today we're going to
take a closer look at

21
00:00:38,570 --> 00:00:39,740
the dependency and

22
00:00:39,740 --> 00:00:41,705
addiction issues
surrounding

23
00:00:41,705 --> 00:00:44,150
the opioid crisis
and what resources

24
00:00:44,150 --> 00:00:45,320
are available to combat

25
00:00:45,320 --> 00:00:46,895
this growing epidemic.

26
00:00:46,895 --> 00:00:48,440
First of all, welcome

27
00:00:48,440 --> 00:00:50,015
to the podcast, Dr. Geyer.

28
00:00:50,015 --> 00:00:51,665
Thank you for
having me on Tracy.

29
00:00:51,665 --> 00:00:53,600
Glad to be here.
Alright, so

30
00:00:53,600 --> 00:00:55,610
here is our first question.

31
00:00:55,610 --> 00:00:56,930
I didn't even realize,

32
00:00:56,930 --> 00:00:57,860
I guess it makes sense,

33
00:00:57,860 --> 00:01:00,424
but that there is a
whole specific field

34
00:01:00,424 --> 00:01:02,540
for addiction medicine.

35
00:01:02,540 --> 00:01:04,670
Well, you're not
alone, Tracy.

36
00:01:04,670 --> 00:01:06,440
In fact, a variety
of physicians are

37
00:01:06,440 --> 00:01:08,299
actually unfamiliar
with this as well.

38
00:01:08,299 --> 00:01:10,280
It's really been
a growing field

39
00:01:10,280 --> 00:01:12,110
over the last
couple of decades.

40
00:01:12,110 --> 00:01:13,640
Many people are
familiar with

41
00:01:13,640 --> 00:01:15,785
the field of addiction
psychiatry, but

42
00:01:15,785 --> 00:01:18,290
addiction medicine
physicians have

43
00:01:18,290 --> 00:01:20,450
kind of been newcomers
to the field.

44
00:01:20,450 --> 00:01:22,610
You know, there's a
variety of ways to come

45
00:01:22,610 --> 00:01:24,875
to the field of addiction:

46
00:01:24,875 --> 00:01:27,050
psychiatry,
internal medicine,

47
00:01:27,050 --> 00:01:28,415
family medicine,

48

00:01:28,415 --> 00:01:30,515
even some medical
sub-specialties.

49
00:01:30,515 --> 00:01:31,595
A number of boards

50
00:01:31,595 --> 00:01:32,960
certify these
individuals,

51
00:01:32,960 --> 00:01:34,610
and as of 2016,

52
00:01:34,610 --> 00:01:36,650
the American Board of
Preventative Medicine

53
00:01:36,650 --> 00:01:37,744
has now undertaken

54
00:01:37,744 --> 00:01:39,860
the American Board of
Addiction Medicine to

55
00:01:39,860 --> 00:01:41,900
certify physicians
interested, coming

56
00:01:41,900 --> 00:01:43,370
from these various
background.

57
00:01:43,370 --> 00:01:45,260
When I think of
Addiction Medicine,

58
00:01:45,260 --> 00:01:46,895
I just think of
like rehab

59
00:01:46,895 --> 00:01:48,200
that someone

goes into rehab,

60

00:01:48,200 --> 00:01:50,525
but I would suspect that
it's more than that.

61

00:01:50,525 --> 00:01:51,875
Good point.

62

00:01:51,875 --> 00:01:52,670
Absolutely.

63

00:01:52,670 --> 00:01:53,450
There's a variety of

64

00:01:53,450 --> 00:01:54,485
things to look for in

65

00:01:54,485 --> 00:01:55,940
Addiction Medicine specialists.

66

00:01:55,940 --> 00:01:57,350
These individuals should
be able to both

67

00:01:57,350 --> 00:01:59,300
recognize and
diagnose addiction

68

00:01:59,300 --> 00:02:01,010
as a primary brain illness,

69

00:02:01,010 --> 00:02:01,970
and they should be able to

70

00:02:01,970 --> 00:02:02,810
do it independent of

71

00:02:02,810 --> 00:02:04,775
the substance or
behavior involved.

72
00:02:04,775 --> 00:02:06,230
They should be able to do

73
00:02:06,230 --> 00:02:07,310
the screening measures

74
00:02:07,310 --> 00:02:08,660
required as well as

75
00:02:08,660 --> 00:02:10,130
brief interventions,
referral to

76
00:02:10,130 --> 00:02:11,810
treatments. They should be,

77
00:02:11,810 --> 00:02:14,629
hopefully, positive,
empathetic individuals

78
00:02:14,629 --> 00:02:15,305
who have the skills

79
00:02:15,305 --> 00:02:16,475
needed to motivate
patients

80
00:02:16,475 --> 00:02:17,750
their families to
make sure that

81
00:02:17,750 --> 00:02:20,015
these patients get
where they need to go.

82
00:02:20,015 --> 00:02:21,260
Other things I would hope

83
00:02:21,260 --> 00:02:22,280
they'd be able to do is

84

00:02:22,280 --> 00:02:23,570
understand the
importance of drug

85
00:02:23,570 --> 00:02:25,025
testing technology,

86
00:02:25,025 --> 00:02:27,275
understand the
neurobiology of addiction,

87
00:02:27,275 --> 00:02:28,865
and then ultimately
the techniques

88
00:02:28,865 --> 00:02:30,770
used in the field
of addiction to

89
00:02:30,770 --> 00:02:31,640
ensure that patients are

90
00:02:31,640 --> 00:02:32,930
receiving both the neuro-

91
00:02:32,930 --> 00:02:34,250
behavioral as well as

92
00:02:34,250 --> 00:02:35,060
the medications

93
00:02:35,060 --> 00:02:36,815
necessary to treat
the disorders.

94
00:02:36,815 --> 00:02:39,290
Alright, what is
the difference

95
00:02:39,290 --> 00:02:42,230
between physical
dependence and addiction?

96
00:02:42,230 --> 00:02:43,640
I kind of thought they
were one and the same,

97
00:02:43,640 --> 00:02:44,840
but I guess they
must not be.

98
00:02:44,840 --> 00:02:46,510
Well, that's a very
good question.

99
00:02:46,510 --> 00:02:49,460
And quite frankly,
a discussion point

100
00:02:49,460 --> 00:02:51,110
that many
physicians seem to

101
00:02:51,110 --> 00:02:53,480
tackle and not have
a good grasp on.

102
00:02:53,480 --> 00:02:54,230
It's important to

103
00:02:54,230 --> 00:02:55,580
understand physical
dependence

104
00:02:55,580 --> 00:02:57,365
does not equal addiction.

105
00:02:57,365 --> 00:02:58,130
In our field,

106
00:02:58,130 --> 00:02:59,480
we understand that many
patients were given

107
00:02:59,480 --> 00:03:02,180

opioids even for very
short period of time.

108
00:03:02,180 --> 00:03:04,595
Take them as prescribed
and appropriately,

109
00:03:04,595 --> 00:03:06,440
and then after being
on them long enough,

110
00:03:06,440 --> 00:03:08,164
experience some
degree of withdrawal

111
00:03:08,164 --> 00:03:09,710
and some degree
of tolerance.

112
00:03:09,710 --> 00:03:10,970
This is not addiction

113
00:03:10,970 --> 00:03:12,275
this is physical dependence,

114
00:03:12,275 --> 00:03:13,430
and we see this with

115
00:03:13,430 --> 00:03:14,555
a variety of
other medications

116
00:03:14,555 --> 00:03:16,880
that we provide. Quinidine
will do this,

117
00:03:16,880 --> 00:03:19,055
antidepressants,
propranolol.

118
00:03:19,055 --> 00:03:20,660
When we think of
physical dependence,

119
00:03:20,660 --> 00:03:21,800
it's kind of a complex

120
00:03:21,800 --> 00:03:23,765
physical and
psychological state.

121
00:03:23,765 --> 00:03:25,220
It might require
other therapy,

122
00:03:25,220 --> 00:03:26,780
similar to addiction
treatment, and

123
00:03:26,780 --> 00:03:28,490
then ultimately
consideration of

124
00:03:28,490 --> 00:03:30,425
even opioid agonists if

125
00:03:30,425 --> 00:03:32,105
their symptoms are
severe enough.

126
00:03:32,105 --> 00:03:36,634
So does physical dependence
if not addressed,

127
00:03:36,634 --> 00:03:37,790
become addiction

128
00:03:37,790 --> 00:03:39,695
or does that not
even happen?

129
00:03:39,695 --> 00:03:41,105
Not necessarily.

130
00:03:41,105 --> 00:03:42,710

Physical dependence
over time

131

00:03:42,710 --> 00:03:44,480
can transform to addiction,

132

00:03:44,480 --> 00:03:46,235
but it's not a linear line.

133

00:03:46,235 --> 00:03:49,820
Addiction in itself
is something that can

134

00:03:49,820 --> 00:03:52,610
develop if there are
predisposing features

135

00:03:52,610 --> 00:03:54,035
inside that individual.

136

00:03:54,035 --> 00:03:55,010
And we can talk about

137

00:03:55,010 --> 00:03:56,270
those in just a little bit.

138

00:03:56,270 --> 00:03:57,560
I think it's
important that we

139

00:03:57,560 --> 00:03:59,495
understand the
definition of addiction,

140

00:03:59,495 --> 00:04:00,980
and I like the
American Society

141

00:04:00,980 --> 00:04:02,945
of Addiction
Medicine's definition.

142

00:04:02,945 --> 00:04:05,600
We recognize it as a
primary chronic disease

143
00:04:05,600 --> 00:04:07,370
of brain reward, motivation,

144
00:04:07,370 --> 00:04:09,155
memory, and
related circuitry

145
00:04:09,155 --> 00:04:10,700
and the dysfunction
in these circuits will

146
00:04:10,700 --> 00:04:12,439
lead to the characteristic
biological,

147
00:04:12,439 --> 00:04:13,700
psychological, social,

148
00:04:13,700 --> 00:04:15,200
and spiritual
manifestation.

149
00:04:15,200 --> 00:04:16,700
So when, then it
comes to opioids

150
00:04:16,700 --> 00:04:17,900
and how has it
become addiction?

151
00:04:17,900 --> 00:04:19,760
Just you are addicted
to the opioids

152
00:04:19,760 --> 00:04:21,560
or...or anything that

153
00:04:21,560 --> 00:04:23,180
touches that part

of the brain?

154

00:04:23,180 --> 00:04:24,605
Good question, Tracy.

155

00:04:24,605 --> 00:04:26,210
So to understand
the process

156

00:04:26,210 --> 00:04:27,560
of addiction it's
important to

157

00:04:27,560 --> 00:04:29,090
understand the
neuropathology

158

00:04:29,090 --> 00:04:30,545
of addiction
and dependence.

159

00:04:30,545 --> 00:04:32,210
Typically, when
we use opioids,

160

00:04:32,210 --> 00:04:33,890
the ultimate goal is
to target either

161

00:04:33,890 --> 00:04:35,630
the periaqueductal
gray area

162

00:04:35,630 --> 00:04:37,520
and/or the spinal cord with

163

00:04:37,520 --> 00:04:39,845
the ultimate goal of
modulating that pain.

164

00:04:39,845 --> 00:04:41,960
The process isn't
that simple though,

165
00:04:41,960 --> 00:04:42,800
opiates bind to

166
00:04:42,800 --> 00:04:44,255
receptors throughout
the brain.

167
00:04:44,255 --> 00:04:45,740
This includes the
limbic system

168
00:04:45,740 --> 00:04:47,195
and the rewards system.

169
00:04:47,195 --> 00:04:48,920
When we think of the
reward pathways,

170
00:04:48,920 --> 00:04:50,360
there's a variety
of brain areas,

171
00:04:50,360 --> 00:04:52,055
including the ventral
tegmental area,

172
00:04:52,055 --> 00:04:53,240
the nucleus accumbens,

173
00:04:53,240 --> 00:04:56,330
the amygdala, the
prefrontal cortex, all of

174
00:04:56,330 --> 00:04:58,310
which work in
coordination to

175
00:04:58,310 --> 00:05:00,500
reinforce that
reward pathway.

176

00:05:00,500 --> 00:05:02,615
The more an individual
uses the opioids,

177
00:05:02,615 --> 00:05:04,880
the more that pathway
is reinforced.

178
00:05:04,880 --> 00:05:07,325
While recognizing that

179
00:05:07,325 --> 00:05:11,120
addiction and dependence
kind of look like,

180
00:05:11,120 --> 00:05:12,920
how does a
provider tell them

181
00:05:12,920 --> 00:05:15,065
apart or how do how
do you diagnose that?

182
00:05:15,065 --> 00:05:16,700
Right now, the
standard of care

183
00:05:16,700 --> 00:05:18,140
to diagnosing
this disorder is

184
00:05:18,140 --> 00:05:19,385
to use the DSM-5

185
00:05:19,385 --> 00:05:21,575
substance use
disorder criteria.

186
00:05:21,575 --> 00:05:22,910
There's a variety of

187
00:05:22,910 --> 00:05:24,770
different

questions that one

188

00:05:24,770 --> 00:05:25,865
would ask a patient.

189

00:05:25,865 --> 00:05:27,590
And depending on
the response,

190

00:05:27,590 --> 00:05:28,940
we can diagnose a patient

191

00:05:28,940 --> 00:05:30,095
as having either mild,

192

00:05:30,095 --> 00:05:31,550
moderate, or severe opiate

193

00:05:31,550 --> 00:05:33,140
use disorder or
none at all,

194

00:05:33,140 --> 00:05:34,790
quite frankly. Some of

195

00:05:34,790 --> 00:05:36,290
the things that we
consider when we ask

196

00:05:36,290 --> 00:05:37,340
these questions is whether

197

00:05:37,340 --> 00:05:38,030
or not the patients

198

00:05:38,030 --> 00:05:39,920
taking the opioid
in larger amounts

199

00:05:39,920 --> 00:05:41,180
than intended or for

200
00:05:41,180 --> 00:05:43,430
longer time periods
than necessary,

201
00:05:43,430 --> 00:05:45,020
if they want to
cut down but

202
00:05:45,020 --> 00:05:46,130
they're not able
to do it, or

203
00:05:46,130 --> 00:05:47,150
they're spending
a lot of time

204
00:05:47,150 --> 00:05:48,485
obtaining the opioid,

205
00:05:48,485 --> 00:05:49,790
if they have craving or

206
00:05:49,790 --> 00:05:51,335
strong desire to use it,

207
00:05:51,335 --> 00:05:52,820
or they repeatedly
can't carry out

208
00:05:52,820 --> 00:05:54,290
major obligations
at their

209
00:05:54,290 --> 00:05:56,360
work or school or home.

210
00:05:56,360 --> 00:05:57,740
You know, if
these individuals

211
00:05:57,740 --> 00:05:59,000
continue to use despite

212
00:05:59,000 --> 00:06:00,290
restricting the
recurring social

213
00:06:00,290 --> 00:06:01,550
interpersonal problems,

214
00:06:01,550 --> 00:06:03,500
that can certainly
be a sign. If

215
00:06:03,500 --> 00:06:04,220
they're stopping or

216
00:06:04,220 --> 00:06:05,390
reducing important social,

217
00:06:05,390 --> 00:06:07,760
occupational, or
recreational activities,

218
00:06:07,760 --> 00:06:08,930
if they were currently using

219
00:06:08,930 --> 00:06:10,700
these opioids
despite being in

220
00:06:10,700 --> 00:06:12,680
physically
hazardous situations,

221
00:06:12,680 --> 00:06:13,685
that there's

222
00:06:13,685 --> 00:06:15,890
consistent use of
opioids despite

223
00:06:15,890 --> 00:06:16,700
recognizing that

224
00:06:16,700 --> 00:06:18,440
they're having
these problems.

225
00:06:18,440 --> 00:06:21,500
DSM-5 also includes
tolerance and withdrawal

226
00:06:21,500 --> 00:06:23,300
criteria but these are

227
00:06:23,300 --> 00:06:25,430
typically not criteria
that can be met

228
00:06:25,430 --> 00:06:26,750
if an individual is taking

229
00:06:26,750 --> 00:06:27,530
opioids under

230
00:06:27,530 --> 00:06:29,375
appropriate medical
supervision.

231
00:06:29,375 --> 00:06:32,179
When it comes to
opioid misuse,

232
00:06:32,179 --> 00:06:34,160
I know there are
some statistics from

233
00:06:34,160 --> 00:06:35,180
the Journal of the American

234
00:06:35,180 --> 00:06:37,370
Medical Association
that talks

235
00:06:37,370 --> 00:06:38,750

about that

236

00:06:38,750 --> 00:06:41,150
the different...the
statistics of that misuse.

237

00:06:41,150 --> 00:06:42,650
Can you share that
with us, please?

238

00:06:42,650 --> 00:06:44,780
Definitely. So we recognize

239

00:06:44,780 --> 00:06:45,890
that misuse of prescribed

240

00:06:45,890 --> 00:06:47,210
opioids has been a major

241

00:06:47,210 --> 00:06:49,130
problem, especially
in America.

242

00:06:49,130 --> 00:06:50,465
In fact, if you
probably heard,

243

00:06:50,465 --> 00:06:54,170
80% of all opioid used
are used by Americans.

244

00:06:54,170 --> 00:06:56,330
As we described, misuse of

245

00:06:56,330 --> 00:06:57,500
opioids may or may not

246

00:06:57,500 --> 00:06:59,060
be a sign of
addiction itself.

247

00:06:59,060 --> 00:07:01,130

There was an interesting
study, however,

248
00:07:01,130 --> 00:07:02,870
the destination of opioids

249
00:07:02,870 --> 00:07:04,040
given to patients
with patterns

250
00:07:04,040 --> 00:07:05,360
of misuse and abuse

251
00:07:05,360 --> 00:07:07,295
included about a
quarter of them

252
00:07:07,295 --> 00:07:09,410
being used by
the individual

253
00:07:09,410 --> 00:07:10,550
who with the
prescription was written

254
00:07:10,550 --> 00:07:12,410
for, a quarter of
prescriptions being

255
00:07:12,410 --> 00:07:14,495
given away to friends
and family for free,

256
00:07:14,495 --> 00:07:15,815
a quarter of them being

257
00:07:15,815 --> 00:07:17,690
sold to friends and
family, and then

258
00:07:17,690 --> 00:07:19,790
15% being directly dealt

259

00:07:19,790 --> 00:07:21,515
in a drug-dealing format.

260

00:07:21,515 --> 00:07:22,880
I believe that was JAMA

261

00:07:22,880 --> 00:07:26,300
in 2014. There was
another study that talked

262

00:07:26,300 --> 00:07:28,520
about 4 in 5 new heroin users

263

00:07:28,520 --> 00:07:29,570
starting out misusing

264

00:07:29,570 --> 00:07:30,710
prescription pain killers

265

00:07:30,710 --> 00:07:33,170
and that was fairly
recent. That was in

266

00:07:33,170 --> 00:07:34,220
the Journal of

267

00:07:34,220 --> 00:07:36,965
Drug and Alcohol
Dependence in just 2013.

268

00:07:36,965 --> 00:07:38,660
So clearly we're seeing

269

00:07:38,660 --> 00:07:40,535
drugs going where
they don't belong.

270

00:07:40,535 --> 00:07:42,770
Can you tell me a little
bit about what would

271

00:07:42,770 --> 00:07:45,560
constitute misuse or abuse?

272
00:07:45,560 --> 00:07:46,910
I mean, we talked
about, you know,

273
00:07:46,910 --> 00:07:49,160
giving them to
friends, selling them,

274
00:07:49,160 --> 00:07:51,470
but where does it
cross the line?

275
00:07:51,470 --> 00:07:52,970
So that's a good question,

276
00:07:52,970 --> 00:07:55,265
and what we've identified
over time is that

277
00:07:55,265 --> 00:07:58,205
not all misuse really
constitutes abuse.

278
00:07:58,205 --> 00:07:58,910
There are certainly

279
00:07:58,910 --> 00:08:00,410
circumstances
where patients

280
00:08:00,410 --> 00:08:02,735
might inappropriately
use their medications,

281
00:08:02,735 --> 00:08:04,400
but it's not
necessarily a form

282
00:08:04,400 --> 00:08:06,230
of diversion and/or

283
00:08:06,230 --> 00:08:08,450
something one might
consider to be part of

284
00:08:08,450 --> 00:08:11,210
the opiate use
disorder criteria.

285
00:08:11,210 --> 00:08:13,190
Now things that I
keep in mind with

286
00:08:13,190 --> 00:08:15,395
my practice are
warning signs,

287
00:08:15,395 --> 00:08:16,040
you know,

288
00:08:16,040 --> 00:08:17,660
if they're increasing
dose requirements

289
00:08:17,660 --> 00:08:18,440
without a change in

290
00:08:18,440 --> 00:08:20,315
their underlying
disease status.

291
00:08:20,315 --> 00:08:22,370
Sometimes if there's
warning signs on

292
00:08:22,370 --> 00:08:24,305
the prescription
monitoring program,

293
00:08:24,305 --> 00:08:24,920
say they're seeing

294

00:08:24,920 --> 00:08:26,810
multiple providers
over the last couple

295
00:08:26,810 --> 00:08:29,275
of years and they're
receiving opioids from

296
00:08:29,275 --> 00:08:31,820
variety of sources
or pretend that

297
00:08:31,820 --> 00:08:33,260
they've been to
multiple emergency

298
00:08:33,260 --> 00:08:34,475
rooms in the
last few weeks,

299
00:08:34,475 --> 00:08:35,870
again, seeking
out opioids,

300
00:08:35,870 --> 00:08:37,505
both might be red flags.

301
00:08:37,505 --> 00:08:38,900
Certainly we have
our share of

302
00:08:38,900 --> 00:08:40,700
prescription
forgery out there.

303
00:08:40,700 --> 00:08:42,080
You know, if patients
are borrowing

304
00:08:42,080 --> 00:08:43,310
another patient's drugs

305
00:08:43,310 --> 00:08:44,540

or obtaining prescription

306

00:08:44,540 --> 00:08:46,355
from non-medical sources.

307

00:08:46,355 --> 00:08:48,230
Certainly if they're
selling their drugs,

308

00:08:48,230 --> 00:08:50,015
That, that would
definitely be abuse.

309

00:08:50,015 --> 00:08:51,530
Certainly sometimes
in my practice I see

310

00:08:51,530 --> 00:08:52,850
hostile or overly

311

00:08:52,850 --> 00:08:55,070
aggressive behavior.
Patients

312

00:08:55,070 --> 00:08:57,290
can sometimes give the
story that they're

313

00:08:57,290 --> 00:08:58,835
currently replacing

314

00:08:58,835 --> 00:09:01,115
and misplacing
their prescriptions.

315

00:09:01,115 --> 00:09:02,810
They might have
ongoing pain

316

00:09:02,810 --> 00:09:04,970
despite resolution of
the driving process,

317
00:09:04,970 --> 00:09:06,705
evidence of drug forwarding,

318
00:09:06,705 --> 00:09:09,430
or if they even
request specific drugs,

319
00:09:09,430 --> 00:09:11,620
sometimes that can
be a bit of a hint.

320
00:09:11,620 --> 00:09:13,180
I'm curious, is there

321
00:09:13,180 --> 00:09:15,130
a certain part of the
population that is at

322
00:09:15,130 --> 00:09:18,595
risk for opioid
abuse or addiction?

323
00:09:18,595 --> 00:09:20,485
Absolutely.

324
00:09:20,485 --> 00:09:21,100
You know, there were

325
00:09:21,100 --> 00:09:22,840
some interesting studies
that came out over

326
00:09:22,840 --> 00:09:25,180
the last few years.
In a study that

327
00:09:25,180 --> 00:09:26,620
was using data
from the NIDA-

328
00:09:26,620 --> 00:09:28,420
funded Monitoring

the Future Survey of

329

00:09:28,420 --> 00:09:30,460
Adolescent Drug Use

330

00:09:30,460 --> 00:09:32,290
and Attitudes,
conducted annually,

331

00:09:32,290 --> 00:09:34,840
they identified
that individuals

332

00:09:34,840 --> 00:09:36,610
by grade 12, who'd received

333

00:09:36,610 --> 00:09:37,780
a prescription
for opioid pain

334

00:09:37,780 --> 00:09:39,310
medication, were actually

335

00:09:39,310 --> 00:09:42,130
thirty-three percent
higher risk of

336

00:09:42,130 --> 00:09:45,220
misusing the opioid
between age 19-25.

337

00:09:45,220 --> 00:09:47,155
So age is certainly
one thing and

338

00:09:47,155 --> 00:09:49,140
we used to use the mantra

339

00:09:49,140 --> 00:09:51,290
between age 18-45 is

340

00:09:51,290 --> 00:09:53,600

our higher risk
population. Length

341
00:09:53,600 --> 00:09:55,295
of exposure is
another issue,

342
00:09:55,295 --> 00:09:57,155
you know, there was
an interesting study

343
00:09:57,155 --> 00:09:59,810
completed in
2017 by the CDC.

344
00:09:59,810 --> 00:10:01,100
They found that a one day

345
00:10:01,100 --> 00:10:02,360
opioid prescription carries

346
00:10:02,360 --> 00:10:03,680
a 6% risk of

347
00:10:03,680 --> 00:10:05,600
use of the opioid
at one year.

348
00:10:05,600 --> 00:10:07,400
That goes down to 2.9%

349
00:10:07,400 --> 00:10:08,780
at three years later.

350
00:10:08,780 --> 00:10:11,270
An 8-day prescription
can carry the risk

351
00:10:11,270 --> 00:10:13,400
of 13.5% of patients

352
00:10:13,400 --> 00:10:15,485

still using that
drug one year later,

353
00:10:15,485 --> 00:10:17,750
and an astonishing 30% of

354
00:10:17,750 --> 00:10:18,770
patients will still be

355
00:10:18,770 --> 00:10:20,300
using the drug
at one year if

356
00:10:20,300 --> 00:10:22,085
they're given a month
long prescription.

357
00:10:22,085 --> 00:10:23,855
Which is the way
it used to be.

358
00:10:23,855 --> 00:10:25,370
Absolutely, yes.

359
00:10:25,370 --> 00:10:27,110
Chronic exposure
to opiates and

360
00:10:27,110 --> 00:10:28,850
long-term prescriptions
were really

361
00:10:28,850 --> 00:10:31,295
the mainstay approach
for many practitioners,

362
00:10:31,295 --> 00:10:33,800
We're certainly rethinking
that. All right,

363
00:10:33,800 --> 00:10:35,450
let's move on to treatment.

364
00:10:35,450 --> 00:10:37,235
What are the
treatment options

365
00:10:37,235 --> 00:10:38,780
for patients with opioid

366
00:10:38,780 --> 00:10:40,685
physical dependency
and addiction?

367
00:10:40,685 --> 00:10:42,680
Tracy, the answer
to that is

368
00:10:42,680 --> 00:10:44,780
referrals, to
high-quality care.

369
00:10:44,780 --> 00:10:46,850
That's the best way
I can empathize it.

370
00:10:46,850 --> 00:10:48,950
Addiction medicine
specialist involvement

371
00:10:48,950 --> 00:10:50,420
is going to be
key once you've

372
00:10:50,420 --> 00:10:51,950
diagnosed or if
you have a high

373
00:10:51,950 --> 00:10:53,720
enough suspicion
that your patient

374
00:10:53,720 --> 00:10:55,565
might have an opiate
use disorder.

375
00:10:55,565 --> 00:10:57,305
We have a variety
of options

376
00:10:57,305 --> 00:10:58,625
available to patients.

377
00:10:58,625 --> 00:11:00,710
This includes psychological
interventions

378
00:11:00,710 --> 00:11:02,420
such as motivational
interviewing,

379
00:11:02,420 --> 00:11:04,235
cognitive
behavioral therapy,

380
00:11:04,235 --> 00:11:05,600
among a variety of others.

381
00:11:05,600 --> 00:11:07,580
And these can be done
in both inpatient

382
00:11:07,580 --> 00:11:09,110
and outpatient settings.

383
00:11:09,110 --> 00:11:11,990
Frequently used is opiate
maintenance therapy

384
00:11:11,990 --> 00:11:13,725
or MAT or OMT.

385
00:11:13,725 --> 00:11:15,650
That's the use of

386
00:11:15,650 --> 00:11:17,105
pharmacologic agents

387
00:11:17,105 --> 00:11:18,860
for the treatment of
opiate use disorder

388
00:11:18,860 --> 00:11:20,090
and this has
really emerged as

389
00:11:20,090 --> 00:11:21,605
really the
standard of care.

390
00:11:21,605 --> 00:11:23,380
Currently approved
medications

391
00:11:23,380 --> 00:11:24,440
for opiate use disorder

392
00:11:24,440 --> 00:11:26,330
includes buprenorphine,
methadone,

393
00:11:26,330 --> 00:11:27,515
and naltrexone.

394
00:11:27,515 --> 00:11:30,020
So buprenorphine and
methadone have been

395
00:11:30,020 --> 00:11:31,100
shown to improve the signs

396
00:11:31,100 --> 00:11:32,630
and symptoms of withdrawal.

397
00:11:32,630 --> 00:11:33,980
They help stabilize the

398
00:11:33,980 --> 00:11:35,900
normal CNS neuroactivity,

399
00:11:35,900 --> 00:11:37,730
they block the receptors,

400
00:11:37,730 --> 00:11:40,100
reducing elicited abuse from

401
00:11:40,100 --> 00:11:41,930
other sources,
and ultimately,

402
00:11:41,930 --> 00:11:43,805
we hope, reduce
drug cravings.

403
00:11:43,805 --> 00:11:45,050
Alright, and then the final

404
00:11:45,050 --> 00:11:46,460
question for this podcast,

405
00:11:46,460 --> 00:11:47,600
can you describe

406
00:11:47,600 --> 00:11:49,075
the available
pharmacotherapies

407
00:11:49,075 --> 00:11:50,480
for opioid dependence and

408
00:11:50,480 --> 00:11:51,875
the differences
between them?

409
00:11:51,875 --> 00:11:53,315
Absolutely.

410
00:11:53,315 --> 00:11:54,920
Probably the
one most people

411

00:11:54,920 --> 00:11:56,345
are familiar with
is methadone.

412
00:11:56,345 --> 00:11:57,980
You've probably heard
of methadone clinics for

413
00:11:57,980 --> 00:12:00,050
opiate treatment.
They're in every state

414
00:12:00,050 --> 00:12:01,550
virtually now, they're

415
00:12:01,550 --> 00:12:03,935
heavily government-
regulated.

416
00:12:03,935 --> 00:12:05,630
The mechanism of
methadone is that it's

417
00:12:05,630 --> 00:12:07,460
a full mu opioid agonist,

418
00:12:07,460 --> 00:12:09,755
which means when it
binds to that receptor,

419
00:12:09,755 --> 00:12:11,540
it prevents binding of

420
00:12:11,540 --> 00:12:14,150
other opiates, at least
in some degree.

421
00:12:14,150 --> 00:12:15,950
Um, it also has some NMDA

422
00:12:15,950 --> 00:12:17,915
antagonist
properties as well.

423
00:12:17,915 --> 00:12:19,850
The nice thing
about methadone

424
00:12:19,850 --> 00:12:21,290
is that it's got
a long half-life.

425
00:12:21,290 --> 00:12:22,610
Typically the
effects will last

426
00:12:22,610 --> 00:12:24,455
about 24-36 hours

427
00:12:24,455 --> 00:12:26,540
and it comes in a
variety of forms.

428
00:12:26,540 --> 00:12:27,650
You can take it by mouth,

429
00:12:27,650 --> 00:12:29,705
subcutaneous, IV,

430
00:12:29,705 --> 00:12:32,075
there's even a
pararectal version.

431
00:12:32,075 --> 00:12:34,250
The advantages are that,

432
00:12:34,250 --> 00:12:35,630
number one, it's
long-lasting,

433
00:12:35,630 --> 00:12:37,490
so that prevents a lot
of the withdrawal that

434
00:12:37,490 --> 00:12:38,570
some patients have with

435
00:12:38,570 --> 00:12:40,145
be shorter-acting opiates,

436
00:12:40,145 --> 00:12:41,720
it's pretty cheap,

437
00:12:41,720 --> 00:12:43,550
and there's been
some studies

438
00:12:43,550 --> 00:12:45,155
that have looked
at the benefit.

439
00:12:45,155 --> 00:12:47,240
A variety
advantages include

440
00:12:47,240 --> 00:12:47,930
the fact that it's

441
00:12:47,930 --> 00:12:49,760
reducing criminal activity,

442
00:12:49,760 --> 00:12:50,990
things like needle-sharing,

443
00:12:50,990 --> 00:12:53,180
HIV infection, and of

444
00:12:53,180 --> 00:12:55,880
course the use
of other opiates.

445
00:12:55,880 --> 00:12:57,830
Now that being
stated, on it's

446
00:12:57,830 --> 00:12:59,915
gotta variety of
disadvantages too.

447
00:12:59,915 --> 00:13:01,790
And what I've
seen in the field

448
00:13:01,790 --> 00:13:03,440
as kind of a slow
transition from

449
00:13:03,440 --> 00:13:05,825
the use of methadone
as standard of care

450
00:13:05,825 --> 00:13:07,400
perhaps to more
consideration

451
00:13:07,400 --> 00:13:09,170
for a drug like
buprenorphine.

452
00:13:09,170 --> 00:13:10,805
And the reason
I say that is

453
00:13:10,805 --> 00:13:11,870
methadone is still

454
00:13:11,870 --> 00:13:13,070
the number one single agent

455
00:13:13,070 --> 00:13:14,390
prescribed
substance causing

456
00:13:14,390 --> 00:13:16,730
unintended fatalities
and overdoses

457
00:13:16,730 --> 00:13:18,245
in the United States.

458

00:13:18,245 --> 00:13:19,550
You will still
get respiratory

459
00:13:19,550 --> 00:13:20,780
depression, and it can be

460
00:13:20,780 --> 00:13:23,300
delayed, cardiac
conduction abnormalities

461
00:13:23,300 --> 00:13:24,935
with QT prolongation,

462
00:13:24,935 --> 00:13:27,110
lots of drug
abnormalities because it's

463
00:13:27,110 --> 00:13:29,885
processed via the
CYP 3A4 system.

464
00:13:29,885 --> 00:13:31,670
Abuse potential is there,

465
00:13:31,670 --> 00:13:33,380
just like any other opiate.

466
00:13:33,380 --> 00:13:35,990
And ultimately
it's got a lack

467
00:13:35,990 --> 00:13:38,420
of privacy during
administration,

468
00:13:38,420 --> 00:13:39,920
which might make some

469
00:13:39,920 --> 00:13:41,675
patients a little
hesitant to use it,

470
00:13:41,675 --> 00:13:43,085
especially in a
public setting.

471
00:13:43,085 --> 00:13:45,410
So we also have
buprenorphine as an option.

472
00:13:45,410 --> 00:13:48,440
This is a partial mu
agonist but antagonist

473
00:13:48,440 --> 00:13:50,630
to the Kappa Delta
receptors as well.

474
00:13:50,630 --> 00:13:52,580
A variety of ways
to take this one in:

475
00:13:52,580 --> 00:13:56,210
oral, transdermal;
usually start low,

476
00:13:56,210 --> 00:13:57,170
as they say, and work

477
00:13:57,170 --> 00:13:58,310
your way up from dosing,

478
00:13:58,310 --> 00:14:00,335
so usually two milligrams

479
00:14:00,335 --> 00:14:02,420
to start with and
then titrate upwards.

480
00:14:02,420 --> 00:14:03,860
It's got some
advantages and

481
00:14:03,860 --> 00:14:05,930

disadvantages. The success

482

00:14:05,930 --> 00:14:07,010
with it is really

483

00:14:07,010 --> 00:14:08,120
that it improves
retention and

484

00:14:08,120 --> 00:14:10,850
treatment and reduces
elicit opiate use for

485

00:14:10,850 --> 00:14:12,890
other drugs. Disadvantage

486

00:14:12,890 --> 00:14:14,885
is that it's expensive;

487

00:14:14,885 --> 00:14:17,000
a lot of times for
both the patches can

488

00:14:17,000 --> 00:14:19,025
be upwards of a
\$170 a month.

489

00:14:19,025 --> 00:14:20,690
You must wait
about 72 hours

490

00:14:20,690 --> 00:14:22,504
between dosing escalation,

491

00:14:22,504 --> 00:14:24,080
and it's difficult
to screen for

492

00:14:24,080 --> 00:14:25,940
in a standard
urine drug screen.

493

00:14:25,940 --> 00:14:27,560
That being stated, it

494
00:14:27,560 --> 00:14:28,760
easier to use in an office

495
00:14:28,760 --> 00:14:30,050
setting and allows for

496
00:14:30,050 --> 00:14:31,850
a bit more privacy
for patients.

497
00:14:31,850 --> 00:14:33,230
And that's all
the time we have

498
00:14:33,230 --> 00:14:34,880
today on Mayo Clinic talks.

499
00:14:34,880 --> 00:14:35,630
Thank you so much,

500
00:14:35,630 --> 00:14:37,100
Dr. Holly Geyer.
Thank you,

501
00:14:37,100 --> 00:14:38,870
again Tracy.
Remember if

502
00:14:38,870 --> 00:14:40,595
you enjoyed this podcast,

503
00:14:40,595 --> 00:14:43,085
please subscribe and
share with a friend.

504
00:14:43,085 --> 00:14:44,240
Healthcare professionals

505
00:14:44,240 --> 00:14:45,800

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506

00:14:45,800 --> 00:14:48,650
for this podcast can go to

507

00:14:48,650 --> 00:14:52,430
ce.mayo.edu/opioidpc and

508

00:14:52,430 --> 00:14:58,890
register. That's
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